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The result of a comprehensive survey of the Nashville and Davidson County school systems, which are now unified as the Metropolitan School System. Following an outline of the major aspects of the legal structure of the charter for the new system, projections of enrollments are made, and the purposes and goals of education are identified to guide the new system in its development. Subject matter achievement levels are evaluated utilizing results of standardized achievement tests, and detailed descriptions are presented of the elementary and secondary school programs as well as vocational-technical, adult evening school and community college education in each of the two systems. Descriptive and evaluative information is also presented for the following aspects of the systems--(1) pupil personnel services, (2) special education services for exceptional children, (3) personnel, (4) physical plant, (5) building requirements, (6) business management, (7) administrative organization, and (8) financial implications. Based on the survey findings, recommendations are made throughout the report for implementation in the development of the unified school system. (FS)

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A
COMPREHENSIVE SURVEY
OF THE
METROPOLITAN SCHOOL SYSTEM

Nashville and Davidson County,
Tennessee

EF003025

ERS Educational Research Services inc. SCHOOL AND COLLEGE CONSULTANTS

A COMPREHENSIVE SURVEY
# of the
METROPOLITAN SCHOOL SYSTEM
of
NASHVILLE AND DAVIDSON COUNTY, TENNESSEE

September 1963

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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This survey would not have been possible without the excellent cooperation of the staffs of the Nashville City school system, the Davidson County school system and many officials and citizens in the community.

In addition to the regular staff of Educational Research Services, Inc., several specialists were engaged as part of the survey team. These include Willard S. Elsbree, Professor Emeritus, Teachers College, Columbia University, whose major contribution was Chapter XI on Personnel; David B. Austin, Professor of Education, Teachers College, Columbia University, who prepared Chapter VII on The Secondary School Program; Warren G. Findley, Professor of Education and Coordinator of Educational Research, and James E. Greene, Chairman, Division of Graduate Studies, both of the College of Education, University of Georgia, who prepared staff studies on which Chapter V on Subject Matter Achievement Levels and Chapter IX on Pupil Personnel Services were based; Sarah Lou Hammond, Head, Elementary Education, Department of Early Childhood Education, School of Education, The Florida State University, who was responsible for the preparation of Chapter VI on The Elementary School Program; Richard H. Hagemeyer, Assistant Superintendent, Adult and Technical Education, Charlotte-Mecklenburg Schools, Charlotte, N.C., who provided Chapter VIII materials on Vocational-Technical, Adult Evening School and Community College Education; and Lloyd M. Dunn, Chairman, Department of Special Education, George Peabody College for Teachers, who together with William C. Geer, Executive Secretary, the Council for Exceptional Children, and Vernon L. Johnson, Director, Special Education, Tennessee State Department of Education, prepared materials reported in Chapter X on Special Education Services for Exceptional Children.

While the foregoing made major contributions to the report, as indicated above, the undersigned, as Director of this Survey, takes full responsibility for the conclusions and recommendations reported herein.

September 1963 Francis G. Cornell

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September 30, 1963

Dr. Henry H. Hill, President
Transitional Board of Education
Metropolitan Government of
Nashville and Davidson County, Tennessee
Nashville, Tennessee

Dear Dr. Hill:

It is our privilege to transmit herewith our report on the Comprehensive Survey of the Metropolitan School System of Nashville and Davidson County, Tennessee. In our work we have been impressed by the opportunities afforded by the combination of the two school systems, not so much for immediate gains, but because of the potential it offers for efficiently building better educational services for the people of Nashville and Davidson County.

This report is hence but a point of departure for the creative thinking and able stewardship needed for years to come in providing soundly appropriate educational opportunities for the citizens of Metro. Surveys cannot build school systems. Mechanisms are needed to assure prudent leadership and enthusiastic support to avoid the many potential pitfalls and disappointments which lie ahead.

The process of unification of the two systems should be completed as soon as possible, not only to equalize educational opportunity and increase efficiency in management, but also to consolidate purposes and goals and attitudes of unity needed to work toward them.

It has been a pleasure to share in the aspirations of the Board, staff and citizens in this undertaking. The prospect for success in creating an educationally sound and economically defensible school system for Metro is encouraging.

We express our appreciation for the excellent cooperation we have had from the Board, staff and many others.

Respectfully submitted,

F. G. Cornell

Francis G. Cornell
President

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I

INTRODUCTION

This is the report of a comprehensive survey of the Nashville and Davidson County school systems now becoming unified as the Metropolitan School System of Nashville and Davidson County, Tennessee, under a Charter creating a new Metropolitan Government for Nashville and Davidson County.

The Charter creating the new Metropolitan Government provides for the independent operation of the two previous school systems under a Transitional Board of Education until June 30, 1964 and charges the Transitional Board as follows:

> "During the transitional period the Board shall cause a comprehensive survey to be made of the two school systems, to the end that, not later than July 1, 1964:
>
> (1) a complete consolidation of the physical properties thereof may be effected.
>
> (2) the consolidation of personnel and employees thereof may be effected."

Occasion for the Survey

The occasion for this survey is the necessity of laying groundwork for the consolidation of two school systems. In no small degree it appears that the Metropolitan Government was brought about because of expected effects that this would have upon educational programs. A review of the background leading to the formation of the Metropolitan Government indicates concern on the part of many citizens and professional education people for the fortunes of the two school systems.

Nashville City system possesses characteristics of the typical educational post-World War II adjustments to rapidly deteriorating, densely populated central city areas. Nashville has faced problems of redesigning and reconstructing its educational programs to meet continuously changing conditions in a mobile population not too much unlike that of most large cities in the United States -- Atlanta, Memphis, Detroit, Chicago, New York, Baltimore and Philadelphia. The problem in the County has been an increase in enrollment as it has become the suburban area supporting the Metropolitan commercial and industrial complex. With rapid growth in total population following increases in numbers of residences in the County, school enrollment has outstripped the tax base. The County is newer and growing. The City is older and changing.

Characteristics of the Community

The Nashville-Davidson County Metropolitan area of 533 square miles will have a total population by 1980 of over a half a million people. Located in approximately the geographic center of the state of Tennessee, it serves as one of the large metropolitan areas of the southeastern part of the United States, with such centers as Memphis on the west; Charlotte; North Carolina on the east; and Atlanta at its south. Nashville is the seat of the capital of Tennessee.

The Metropolitan community has considerable assets with which to support the development of an excellent public education program. The prospects of continued growth are good. Manufacturing is diversified, ranging from clinical thermometers to massive seagoing steel barges. Employment opportunities continue to develop with increasing employment in manufacturing, wholesale and retail trade, finance, insurance, various service occupations and government. In less densely populated parts of the County there is productive farming.

The community is a cultural center of considerable renown. It has 14 universities and colleges and some 21 preparatory and denominational schools. Among the institutions of learning are Vanderbilt University, George Peabody College for Teachers, Scarritt College for Christian Workers, Belmont College, David Lipscomb College, Fisk University, the Meharry Medical College, the Tennessee Agricultural and Industrial State University and Trevecca Nazarene College.

The Perspective of the Survey

In view of the mandate in the Charter to the Transitional Board, it is apparent that this survey is not a survey of two systems. To be sure, to understand problems of uniting the two systems it is necessary to recognize some of the great differences between them. These will be brought out in the report. The main emphasis, however, is not in the past, but on what the Metropolitan School System should be becoming. The perspective of this survey is thus toward the future. It is hence to be expected that recommendations in this report may imply major departures from current practices in the educational systems of either of the two districts.

Work of the survey team has been directed to making recommendations for action, taking into account:

(a) steps needing immediate attention

(b) steps for long-term consideration

(c) possible economies (savings) to be derived from consolidation

(d) Feasibility with respect to financial resources of the Nashville-Davidson County Metropolitan area.

The survey staff has been particularly mindful of the scope of the new combined educational system. As is shown later in this report, in the not too distant future this school system will represent a total enrollment of over 100,000 pupils and staff of possibly 4,000 to 5,000 workers. There is no existing school system which can be used as a model for it. It is hoped that there never will be -- that the leadership in the community will attempt to design it to fit the unique requirements of the Metropolitan Government and education for the people in the area. However, because of the many features of organization, management and the provision of instruction in large school systems, there is practically no standard that can be taken within the State of Tennessee with the exception of the school system of Memphis.

In dealing with school systems of over 100,000 population, the designers and planners of this new venture must look to such school systems as San Diego, California; Washington, D.C.; Duval County (Jacksonville), Florida; Atlanta, Georgia; St. Louis, Missouri; Dallas, Texas; Seattle, Washington; Milwaukee, Wisconsin; Denver, Colorado; Indianapolis, Indiana; New Orleans, Louisiana; Baltimore County, Maryland; and Boston, Massachusetts.

It is comforting to use a reference group or model which is close to home. But in the final analysis, the sociology and the economics of this vigorous area are not isolated and regional. The trade and the commerce and the cultural diffusion eminating from the Nashville-Davidson County Metropolitan area speaks of its national significance and justifies a broader view in searching for its reference group.

This does not mean that its problems and its school systems should be like those in Seattle, Denver, Boston, New Orleans, Atlanta or Memphis.

There are high hopes and aspirations embedded in the Charter which creates the new school system. Steps to make these hopes a reality is a huge undertaking. A narrow perspective completely disregarding the magnitude of the task would inevitably lead to failure.

Means Versus Ends

It is very easy to lose sight of goals and purposes in designing details of procedures, processes, and mechanisms to be used for accomplishing results. The nature of the mission of this survey team has been interpreted as one of emphasizing the goals, the purposes, the performance requirements and not the mechanisms. There is no perfect school system in the United States today. The accumulating knowledge about learning and teaching and organizing and managing public education has not been digested and has not been brought to bear to provide an ideal education. Much of what goes on in schools today we do simply because we started doing it that way.

Many of the details of how to achieve the goals in Nashville and Davidson County must be developed by Nashville and Davidson County, not by a survey team. There are many alternative courses of action, some of which will be apparent only as events occur year by year in the future of the new school system. The major directions which are outlined in this report should be helpful, whether they are followed in meticulous detail or not, in the major purpose of a rapid unification of the two school systems.

II

MAJOR PROVISIONS OF THE CHARTER

As noted previously, the two school systems of Nashville and Davidson County are operating within the framework of the Metropolitan Government under a Transitional Board, but separately with separate administrations and separate budgets. Beginning the school year 1964-65, the unification of the two systems is to be administratively effected. The following paragraphs outline the major aspects of the legal structure as provided in the Metropolitan Charter for the new Metropolitan School System.

The Board of Education

The Board of Education is to consist of nine members appointed by the Mayor of the Metropolitan Government with the approval of a two-thirds majority of the Metropolitan Council. The first Board is to be appointed at least 60 days prior to July 1, 1964. One member is to be appointed from each of nine areas consisting of councilmanic districts, as set up by the Charter. Members must vacate their offices if they move from the area in which they were living at the time of their appointment.

In the framing of the Charter, consideration was given to an elected Board of Education. In theory, approval by the elected Council by appointments by the Mayor is the means by which membership of the Board will be kept close to the people. The system of geographic representation is feared by some as restricting the choice for new Board members and engendering Board practices in which there would be competing local vested interests. Regardless of method of selection, the community and governmental bodies and officials must accept the principle that the objective is to have appointed the most qualified, eligible individual and that whether or not chosen from a geographic segment or the community at large, a Board member's responsibility is to the community at large -- not to a constituency.

Membership. Three members are to be appointed for terms of six years; three for terms of four years; and three for terms of two years. Upon the expiration of the beginning terms, successors are to be appointed for full six-year terms. Vacancies are to be filled for the remainder of the term of the former member.

Membership on the Board of Education of any school district represents the highest type of public service. Board members should be responsible to the people of the community and should use their best judgment to help develop and maintain the best education possible for the children and youth of the entire school district.

Whether or not this can be done by an appointed Board will depend upon the caliber of the members appointed. Some other school districts in the United States are doing it and therefore it should be possible in this new Metropolitan school district if the members are carefully selected.

Powers and Duties. The Board of the new district has all the powers and duties conferred county boards of education and city boards of education including, but not limited to, Tennessee Code Annotated, Sections 49-214 which outlines duties of county boards and 49-215 which states discretionary power of boards, excepting only as specified in the new Metropolitan Charter.

Under the Charter, the Board is authorized to do all things necessary or proper for the establishment, operation and maintenance of an efficient and accredited consolidated school system including the following actions, upon recommendation of the Director of Schools:

1. The employment and fixing of the compensation of all persons necessary for the proper conduct of the public schools
2. The maintenance and preservation of school property, the management and safeguarding of school funds
3. The acquisition of school sites
4. The erection, maintenance and improvement of school buildings and additions thereto
5. The purchase of school equipment, furniture, apparatus, supplies and the like
6. The provision of group insurance of not less than Five Hundred Dollars ($500) each on its employees and teachers
7. The promulgation of plans, rules and regulations for the administration, operation and maintenance of a public school system
8. The adoption of approved rules and regulations concerning purchasing, including the establishment and enforcement of standard specifications for all supplies, materials and equipment required by the Board and which it has authority to purchase or lease
9. The continuance of furnishing free textbooks in the public schools

10. Receiving and accepting State Aid in effect at the time of the adoption of the Charter, unless and until changed by ordinance of the Council upon the recommendation of the Board

In addition to other duties imposed by the Charter or by general law, the Board must:

1. Hold regular monthly meetings open to the public
2. Adopt and make available for distribution rules, regulations and a statement of policies including:
    a. The manner and method of operating the Metropolitan School System and its properties
    b. The manner and method of employing personnel
    c. The rules and regulations relating to all personnel policies and any requirements with reference to teaching personnel or non-teaching personnel, salaries, vacations, sick leave, job security and retirement policy
3. Hold public hearings on the operational budget prior to its approval by the Board and thereafter to submit it to the Mayor through the Director of Finance for subsequent consideration by the Council.

Fiscal Dependence

Since the operational budget of the school system is to be a part of the Metropolitan Government's budget, the school system is to be a fiscally dependent system. Fiscally independent boards of education prepare budgets within various prescribed limitations and levy taxes directly -- with accountability only to voters in the school district.

There are advantages to the fiscally dependent system. Most important is the opportunity it offers for sound public administration to balance all public service financial requirements against all potential revenues so that all government finance is coordinated as a whole. This is particularly important where mounting demands for public services -- education, health and welfare, law enforcement, public works, etc. -- outstrip potential sources of revenue. The situation in Nashville-Davidson County is of this nature.

From the standpoint of developing an educational program, there are these dangers:

1. That determination of educational expenditures becomes locked in the hands of a political machine

2. That control of the educational operation becomes too far removed from the voice of the people

3. That decision-making processes in the formation of policy and operation of schools become bogged down in too many layers of a bureaucracy

Wisely the framers of the Charter have placed safeguards against these hazards. For instance, by a two-thirds majority the Board of Education can request a special referendum to vote upon an increase in school budget funds over the amount adopted by the Council.

There is ample latitude in the provisions of the Charter for the development of a level of educational service demanded by the inhabitants of Metro at a level of efficiency required by the amount of money the people are willing to spend. This can come about only if there is constant vigilance on the part of all concerned in working toward those wholesome conditions of school government which will make the Metropolitan System work. Among the imperatives discussed elsewhere in this report are:

1. Provision for intra-governmental communications and public information operations within the new school system which will enable officials and the public to have enough factual information about the schools to exercise intelligently their responsibilities as public servants or their franchises as voters. This is a function for which adequate funds should be budgeted. The need for this has been apparent during the entire course of work on this survey.

2. Avoidance of bureaucratic layering by the earliest possible establishment of highly competent central administrative staff under a highly qualified Metropolitan Director of Schools so that a maximum of school management decisions can emanate under the control of the Board of Education with a minimum of dependence upon other branches of the Metropolitan Government.

3. Development of an administrative structure for the school system with safeguards against the dangers of becoming too big. The recent experiences in New York City illustrate this point. A survey of schools there has found lack of top-level coordination,

insufficient internal communication, duplication of efforts, no clear delegation of authority and overlapping responsibilities. Mainly by good management will the Board of Education and the staff of the school system in Metro command the respect of the rest of Metro Government and the people so as to avoid bureaucratic stagnation.

III

PROJECTED ENROLLMENT TO 1972

For purposes of visualizing the scope of the new school system and in order to make recommendations for quantities of staff and facilities required as the school system grows, it is necessary to make projections of enrollments. Basically, it is the number of pupils to be educated that determines the magnitude of the task.

Bases for Projecting Enrollments

There are several methods common in use for the projection of enrollments in school districts. An ideal foundation for such work in a district as large as this with its varying communities, neighborhoods and sub-neighborhoods is a complete and accurate school census. Unfortunately, there was not a school census of the two areas. For that matter, the kinds of information in the two separate systems were so different that statistical operations for projection of enrollment were severely restricted. Since the types of analyses which are made in this survey are to become increasingly important in the planning and efficient development of the new school system, it is recommended that at any early date there be conducted a thorough school census, and that this be done on modern electronic data processing equipment which will permit with facility the thorough analysis necessary to plan efficiently.

Lacking information on census which gives area by area school population data over several successive years, it is necessary to resort to approximations. The term "projection" is used here advisedly rather than "prediction" because these data are merely statistical benchmarks, not forecasts. There are many assumptions involved in these numbers. There are unforeseeable world-wide, national and local events that can change the situation rapidly. They are based largely upon a projection into the future of trends of recent years.

Statistics in the present analysis were assembled from the 1960 census, from local government sources and from the two school systems, showing the number of births to residents over a period of years and the backlog of pre-school children plus the numbers of children in schools by grade, treating separately the white and non-white populations within the City and County systems. The method of projection used was a standard method which determines the ratios of survival over a period of recent years, first from the crop of new children born in the district to those six years later entering the first grade, then the survival ratios of the number of pupils in the second grade to the number in the first grade in the previous year, and so on. On the basis of these ratios, births as of a given date are converted to expected first grade enrollments six years later. This group is then at the observed rate of survival carried through the second, the third, the fourth grade and so on.

For purposes of redistributing this set of data to geographical areas within the County, a statistical device was used in lieu of census information which, in short, takes into account the possible future additional families or dwellings in parts of the total area and applies to this expected additional number anticipated densities of school population in terms of numbers of children of school age per family. As a base for this, the survey team had at hand a population report of the Nashville City and Davidson County Planning Commissions prepared in 1962 and in which this identical process was used, not for purposes of projecting school population, but total population. By means of the best available information in the hands of the Planning Commissions and the seasoned judgment on total population developed by the staff preparing that report, it was possible to deduce, along with 1960 census information, anticipated total numbers of dwellings in various areas of the entire County and ratios of numbers of school children per dwelling. On this basis total enrollments as projected in 1972 were redistributed by 22 planning areas used in the current survey.[1]

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[1] See Nashville City and Davidson County Planning Commissions. Population Report #5 -- The Estimated Distribution of Population of Davidson County, Tennessee, 1950-1960 with Forecasts to 1980. December 1962.

Growth in Enrollment to 1972

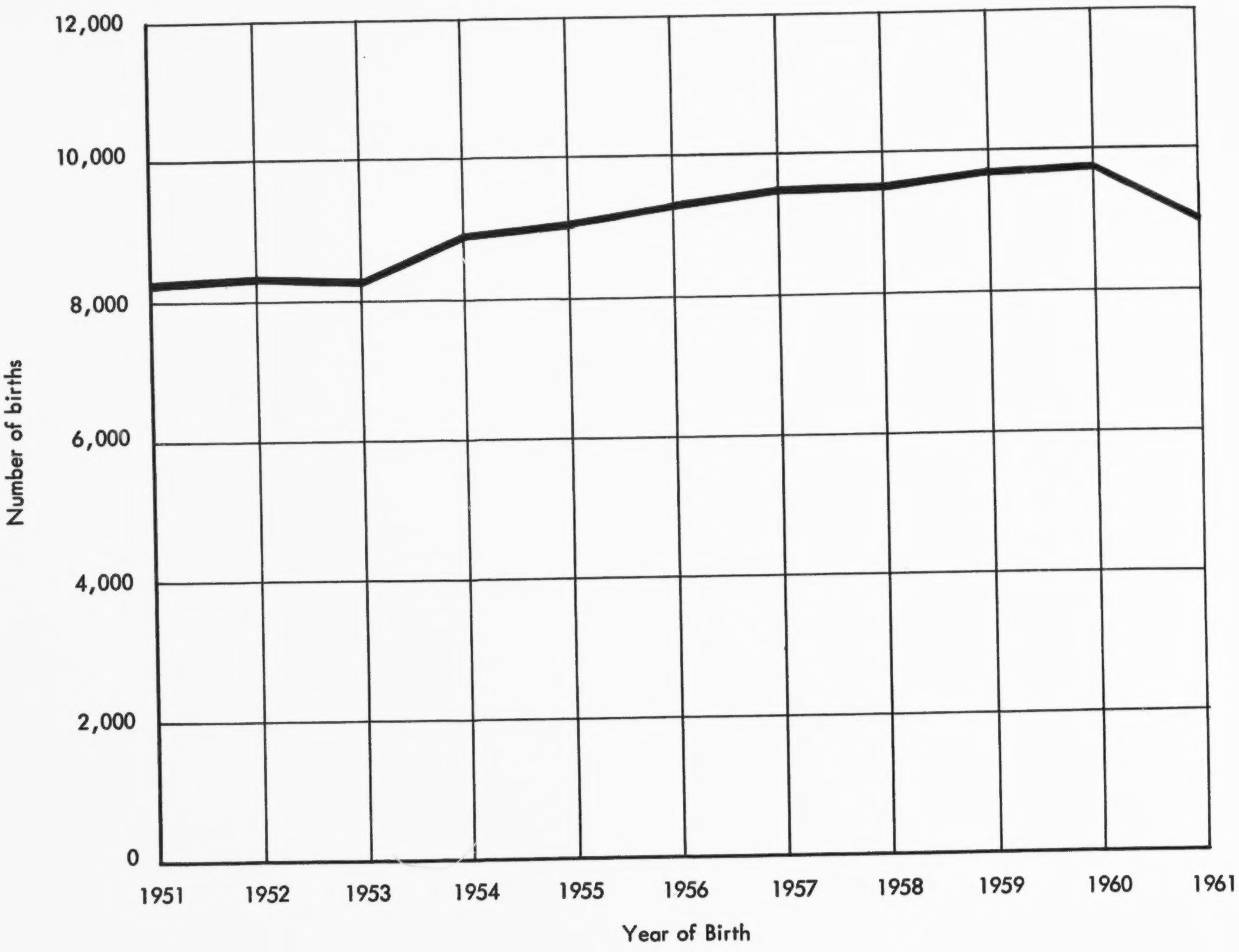
The initial source for an increase in enrollment is the new crop of babies coming into an area each year. Nashville and Davidson County are sharing with other parts of the United States the continuation of the population explosion which has had some peaks and declines, but has more or less continued since the conclusion of World War II. In Table 1 and in the accompanying chart we see that the births over the past 10 years or so have continuously increased to residents of the area. This is confirmed by highly related but somewhat different statistics available from the 1960 census. On the basis of these data, it is reasonable to expect a continuation of a new source of supply of school children in Metro at the rate of approximately 9,500 annually.

Analysis of detailed tabulations reveals clearly that the school system now is feeling the impact of the first peak in births during the years 1946 and 1947, since the two districts have a marked increase in 11th grade and 12th grade children. To begin school next year these 11th and 12th graders will be completing

TABLE 1

BIRTHS TO RESIDENTS IN NASHVILLE AND DAVIDSON COUNTY AND CORRESPONDING 1960 CENSUS ENUMERATION BY AGE

Year of Birth	Number of Births	1960 Census	
		Age	Number
1951	8,331	9	7,527
1952	8,359	8	7,875
1953	8,318	7	8,112
1954	8,936	6	8,259
1955	9,165	5	8,816
1956	9,339	4	8,798
1957	9,577	3	9,128
1958	9,559	2	9,022
1959	9,684	1	9,017
1960	9,759	Under 1	9,344
1961	9,532	—	—



BIRTHS TO RESIDENTS OF NASHVILLE AND DAVIDSON COUNTY their education as the initial crop of the bulge in births. As Table 1 and the accompanying diagram show, there was a slowing up of this increased birth rate during the Korean War. At its cessation, beginning in about 1954, the crops of new potential school children picked up again. The peak reached in new school children entering the world in 1959 and 1960 will be reflected in increased enrollments through the next decade beginning about 1965.

For planning purposes, the projection shown in Table 2 is used in this report. This shows the projected number of children enrolled as of October at the beginning of each school year. This projection is more conservative than others prepared. For instance, one method will show a total by 1972 of over 104,000. When statistically related to the population projections of the Planning Commissions cited previously, this carried to 1980 would represent over 107,000 school children. The school system is, therefore, in a matter of time clearly becoming one that will join the class of large school districts in the United States of school population of over 100,000.

A breakdown of the projections indicates that between 1962 and 1972 the major part of the growth will be in what is now the County system. As a matter of fact, the school population in the City has been declining and from information obtained from planning experts, it will continue to decline on into the next decade or longer. The school population in the City is now approximately 54 percent white and 46 percent non-white. By 1972 this ratio will be reversed. If the trend continues, by 1972 the non-white school population within the City will represent 57 percent and the white population 43 percent of the total. Some increase in non-white population in what is now the County district is to be expected. However, the non-white population in the County system is slightly more than five percent of the total.

There is no evidence that Nashville will be experiencing the rapid transition from white to non-white school population that has been of serious consequences in many large school systems throughout the United States. The experience of Manhattan, New York City; Washington, D.C.; and Baltimore, Maryland, for example, has been difficult for those administering school systems in their efforts to adjust to interpretations of the United States Supreme Court relative to the proper racial distribution of pupils in schools. Instead of 75 percent non-white, as is now the approximate proportion in Manhattan in New York City and in Washington, D.C., the new school system in Nashville and Davidson County will not likely have more than one-fifth of its population non-white. It will demand, nevertheless, serious study, since a large proportion of the non-white population is concentrated in small areas of the new Metropolitan school district.

During the course of the survey, the leadership in the Metropolitan Government has taken forward steps to handle unemotionally and intelligently problems of racial relations which have been active during the period. The ways

TABLE 2

ACTUAL AND PROJECTED OCTOBER MEMBERSHIP

NASHVILLE - DAVIDSON COUNTY

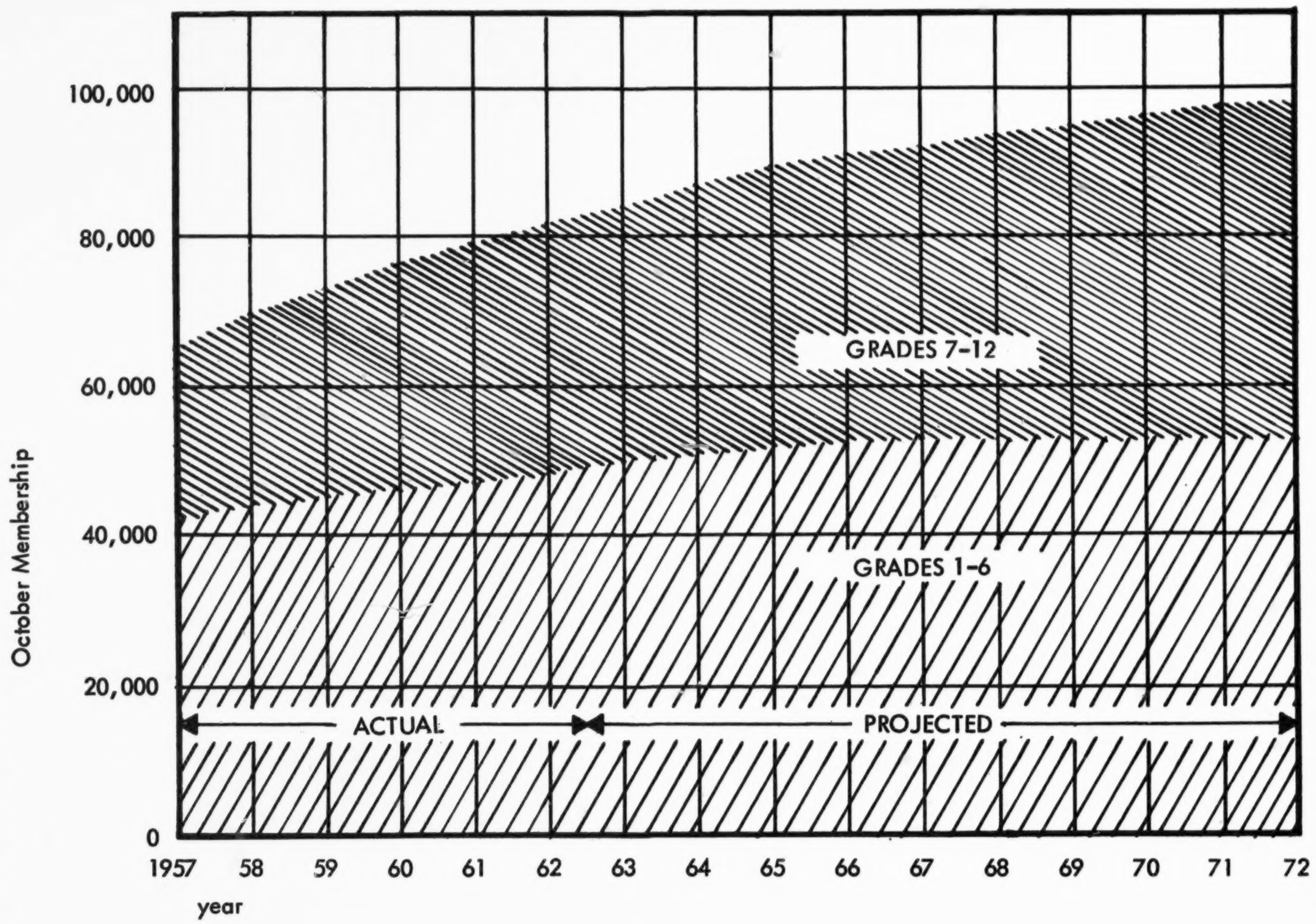
METROPOLITAN SYSTEM, 1957-1972

Year	Grades				Special**	Total
	1-6	7-9	10-12	1-12		
1957*	42,099	14,505	9,354	65,958	(a)	65,958
1958*	44,301	15,304	10,253	69,858	(a)	69,858
1959*	45,381	17,049	10,707	73,137	(a)	73,137
1960*	46,327	18,808	10,759	75,894	854	76,748
1961*	47,052	19,874	11,575	78,501	1,055	79,556
1962*	48,110	20,004	13,335	81,449	1,209	82,658
1963	49,556	20,084	14,791	84,431	1,393	85,824
1964	50,714	20,429	15,454	86,597	1,576	88,173
1965	51,800	20,931	15,344	88,075	1,753	89,828
1966	52,626	21,651	15,412	89,689	1,937	91,626
1967	53,157	22,175	15,690	91,022	2,121	93,143
1968	53,209	22,973	16,079	92,261	2,307	94,568
1969	53,134	23,592	16,637	93,363	2,334	95,697
1970	53,077	24,113	17,029	94,219	2,355	96,574
1971	52,908	24,326	17,653	94,887	2,372	97,259
1972	52,680	24,484	18,128	95,292	2,382	97,674

* Actual

** Based on trend in ratio to total up to ratio in city in 1962

(a) Not available



ACTUAL AND PROJECTED ENROLLMENT

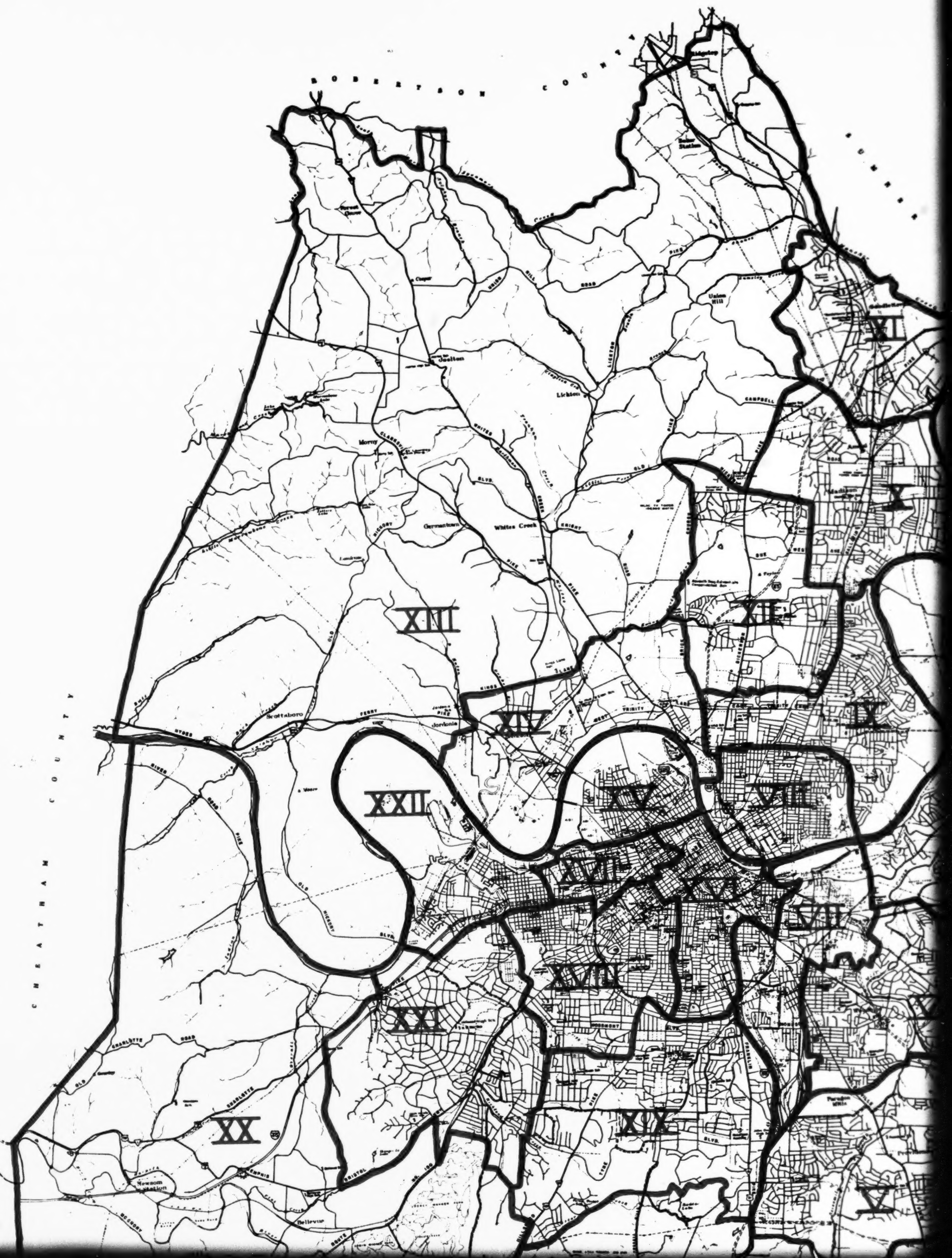
in which, over the past years, the City school district and the County school district have taken action on the school integration issue are commendable and speak for a continued satisfactory resolution of problems in this regard.

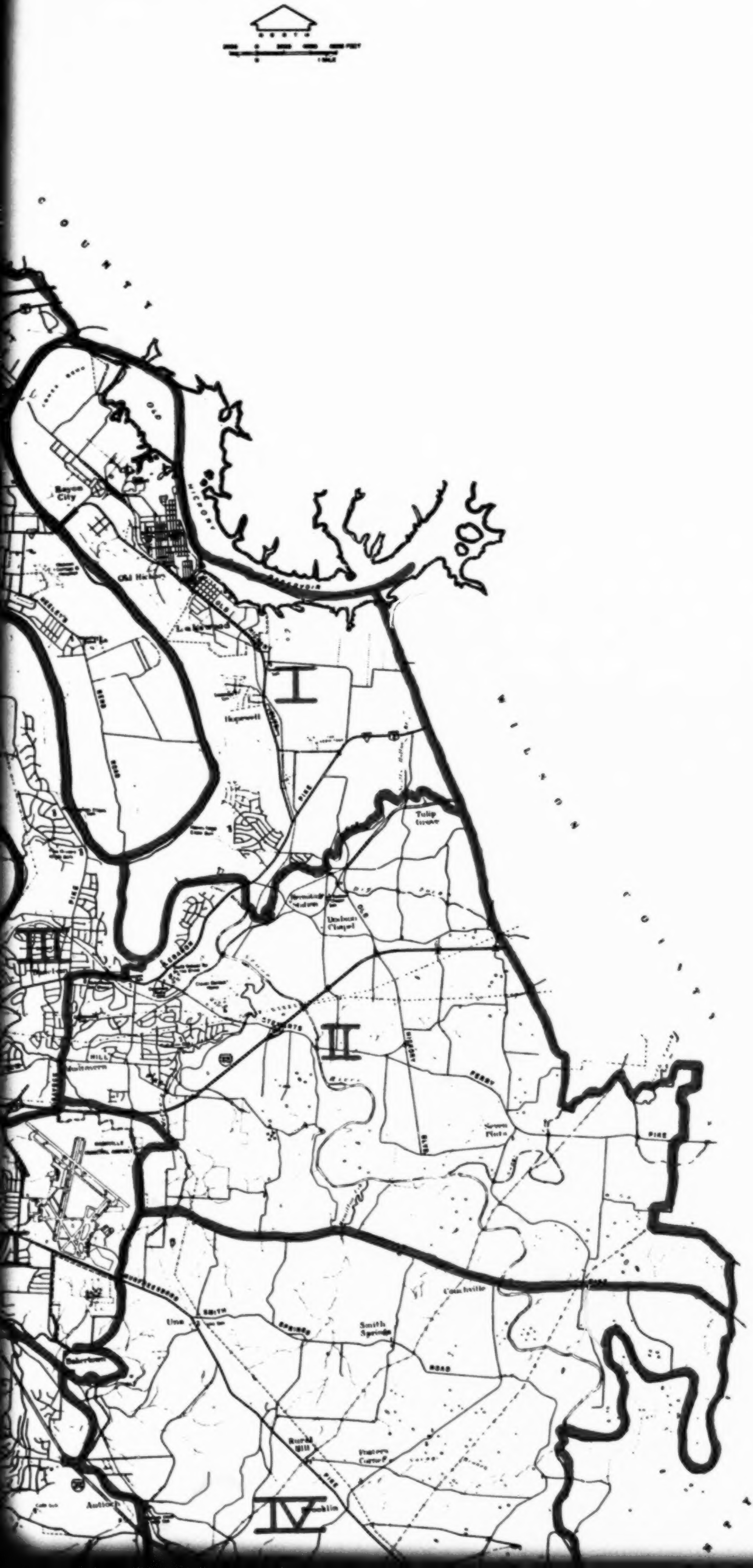
Distribution of 1972 Projection by Planning Areas

In order to redistribute the 1972 projected population by parts of the district, studies were made of school enrollments as of 1962-63 by zones or attendance areas for both elementary and secondary schools, United States census information by census tracts, and data at hand from the Planning Commission. The possible combinations of information permitted the formation of the 22 school construction planning areas. The objective was not to ascertain perfect communities or sub-communities or neighborhoods, but to establish sub-areas from available data in which there was sufficient information on present school populations, present existing facilities and possible future school population to be useful in planning. It was possible to make independent survival ratio projections in several of these areas in which there was sufficient information on enrollment. In the main, dependence was placed primarily upon the population studies of the Planning Commissions. The objective was to determine the 1972 target date possible enrollment in these areas. Statistics are reported in the chapter on the projection of school plant requirements derived from this analysis.

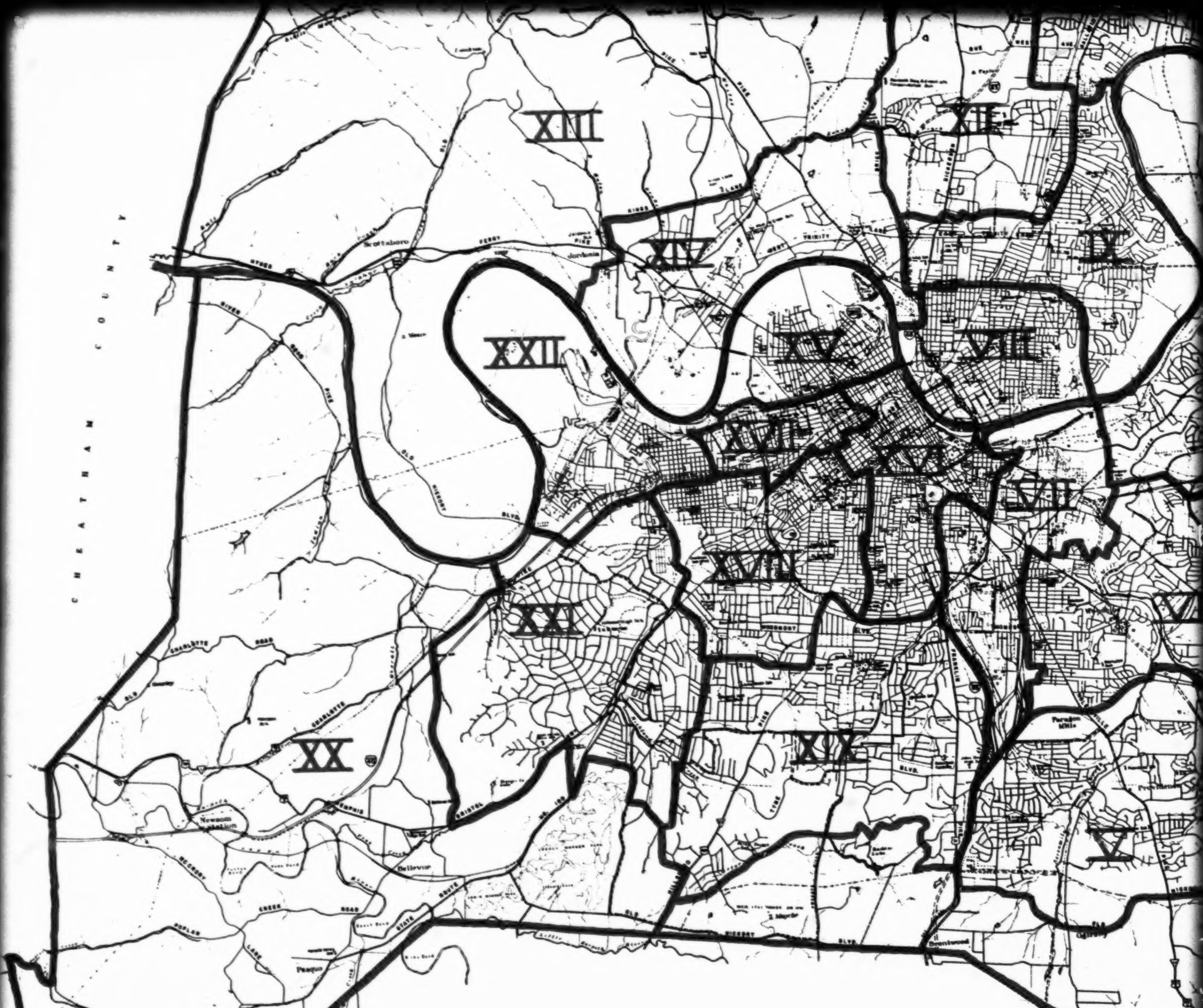
On the basis of census information showing the median years of schooling of the population, the percentage of employed persons in professional and managerial occupations, the median family income, the percentage of owner-occupied homes and similar information, the 22 areas rank in socio-economic level approximately as follows:

XIX	Greenhills
XXI	West Meade - Hillwood
III	Pennington - Donelson Hills
V	Sevenmile Creek Growth Area
XVIII	West End
IX	Joywood - Inglewood
X	Madison Growth Area
II	Bluefields - Cloverhill
VI	Glenbine
XII	Maplewood
IV	Southeast Rural (Part)
XI	Goodlettsville
XX	Southwest
I	Old Hickory Growth Area
XIII	Northwest
XIV	White's Creek


ROBERTSON COUNTY
CHEATHAM COUNTY
Forest Grove
Cooper
Joelton
Lickton
Union Hill
Baker Station
Goodlettsville
Madison
Morny
Germantown
Whites Creek
Scottsboro
Jordonia
Newsom Station
Bellevue
UNION HILL ROAD
LICKTON
CAMPBELL
CLARKSVILLE
WHITES CREEK PIKE
OLD HICKORY BLVD.
CHARLOTTE ROAD
TRINITY LANE
BRISTOL
XIII
XIV
XV
XXII
XVI
XVII
XVIII
XXI
XX
XIX
XII
XI
X
IX
VIII
VII
V



AREA NO. AND DESIGNATION		PLANNING COMMISSION UNITS INCLUDED	
I	Old Hickory Growth Area	1	Old Hickory
		80	Hermitage Hills
II	Bluefields - Cloverhill	74	Cloverhill
		75	Bluefields
III	Pennington - Donelson Hills	76	Merry Oaks
		77	Knapp Farm
		78	Donelson Hills
		79	Pennington Bend
IV	Southeast Rural (Part)		Southeast Rural Planning Area (Part)
V	Sevenmile Creek Growth Area	62	Crieve Hall
		63	Tusculum
		64	Antioch
		65	Beverly Heights
VI	Glenbine	66	Glencliff
		67	Radnor
		68	Woodbine
		72	Glenview
		73	Airport
VII	Berry Hill - Elm Hill	69	Radnor Yards
		70	Berry Hill
		71	Elm Hill
VIII	East Nashville	17	Greenwood
		18	Eastland
		19	Lockeland
		20	Boscobel Heights
		21	Edgefield
		22	Douglas Park'
		23	Northeast Nashville
		24	Highland Heights
		26	East Industrial
IX	Joywood - Inglewood	11	North Inglewood
		12	South Inglewood
		13	Dalewood
		14	Rosebank
		15	Riverside
		16	Burchwood
		25	Joywood
X	Madison Growth Area	4	Amqui
		5	Neely's Bend
		6	Madison
		7	Old Center
		8	Graycraft
XI	Goodlettsville	2	Edenwold
		3	Goodlettsville
XII	Maplewood	9	Bellshire
		10	Maplewood
XIII	Northwest		Northwest Rural Planning Area
XIV	White's Creek	27	Haynes Heights
		28	Bordeaux
XV	North Nashville	29	Bush Lake
		30	Northwest Industrial
		32	Buena Vista
		33	Early
		34	North Fisher Park
XVI	South Nashville	48	West Commercial
		49	Sulphur Dell
		50	Central Business
		51	Howard Park
		52	Napier Park
		53	Edgehill
		54	Waverly - Belmont
XVII	Hadley Park	35	South Fisk Park
		36	Watkins Park
		37	College Heights
XVIII	West End	38	Elkins Park
		39	Sylvan Park
		45	Cherokee Park
		46	Fairfax
		47	University Center
		55	Hillsboro - Belmont
		57	Woodmont
XIX	Greenhills	56	Greenhills
		58	Tyne Meade
		59	Seven Hills
		60	Glendale
		61	Lealand


XIII
XII
IX
XIV
XXII
XV
VIII
XVII
XVI
VII
XVIII
XXI
XX
XIX
V
CHEATHAM COUNTY
WILLIAMSON COUNTY
Scottsboro
Jordonia
Bellevue
Newsom Station
Pasquo
Linton
Brentwood
Paragon Mills

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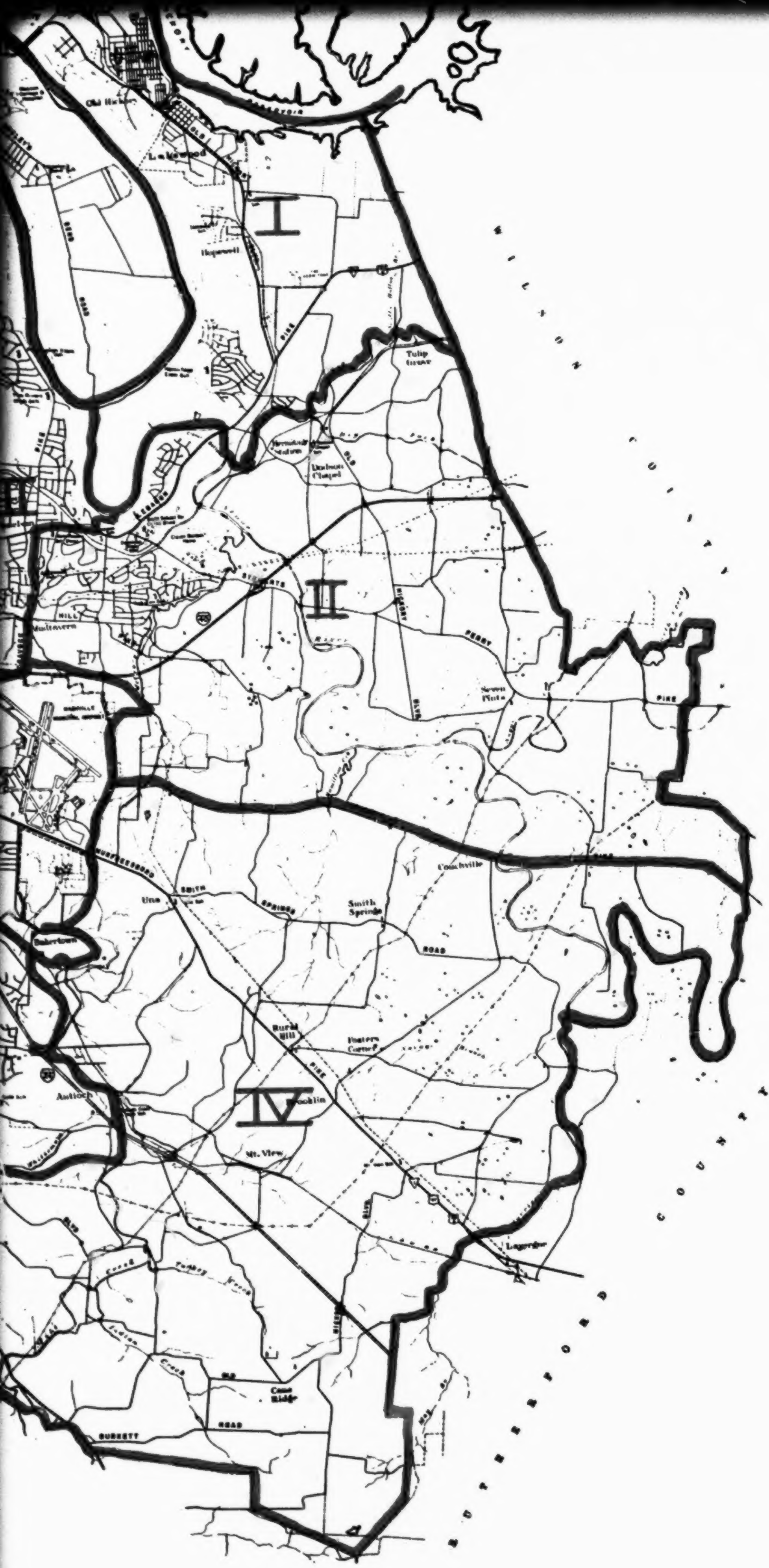
NASHVILLE - DAVIDS

SCHOOL CONSTRUCTIO



I
II
IV
Old Hickory
Lakewood
Hopewell
Tulip Grove
Donelson
Couchville
Smith Springs
Una
Rural Hill
Antioch
Mt. View
Cane Ridge
Lavergne
Seven Points
W I L S O N   C O U N T Y
R U T H E R F O R D   C O U N T Y

IX	Joywood - Inglewood	11	North Inglewood
		12	South Inglewood
		13	Dalewood
		14	Rosebank
		15	Riverside
		16	Burchwood
		25	Joywood
X	Madison Growth Area	4	Amqui
		5	Neely's Bend
		6	Madison
		7	Old Center
		8	Graycraft
XI	Goodlettsville	2	Edenwold
		3	Goodlettsville
XII	Maplewood	9	Bellshire
		10	Maplewood
XIII	Northwest		Northwest Rural Planning Area
XIV	White's Creek	27	Haynes Heights
		28	Bordeaux
XV	North Nashville	29	Bush Lake
		30	Northwest Industrial
		32	Buena Vista
		33	Early
		34	North Fisher Park
XVI	South Nashville	48	West Commercial
		49	Sulphur Dell
		50	Central Business
		51	Howard Park
		52	Napier Park
		53	Edgehill
		54	Waverly - Belmont
XVII	Hadley Park	35	South Fisk Park
		36	Watkins Park
		37	College Heights
XVIII	West End	38	Elkins Park
		39	Sylvan Park
		45	Cherokee Park
		46	Fairfax
		47	University Center
		55	Hillsboro - Belmont
		57	Woodmont
XIX	Greenhills	56	Greenhills
		58	Tyne Meade
		59	Seven Hills
		60	Glendale
		61	Lealand
		81	Forest Hills
XX	Southwest		Southwest Rural Planning Area
XXI	West Meade - Hillwood	42	Hillwood
		43	West Meade
		44	Belle Meade
XXII	Richland - Centennial	31	Centennial
		40	West Park
		41	Richland

N COUNTY

PLANNING AREAS

Educational Research Services, Inc.
1963

XVI	South Nashville
XXII	Richland - Centennial
VIII	East Nashville
VII	Berry Hill - Elm Hill
XVII	Hadley Park
XV	North Nashville

IV

PURPOSES AND GOALS FOR GOOD EDUCATION

Different judges of schools have different values or criteria. How an individual evaluates an educational program depends upon what he expects a school to accomplish.

This chapter is a backdrop to others which follow by reviewing some of the essential purposes of education by which it is assumed the new Metro School System will be guided in its development.

Many of the points made here are implied or expressly stated in curriculum materials and other documents of the two existing school systems. To state a philosophy or set of goals is one thing; to reach them is another. The major message of this chapter is that there is a long road to go before the generally accepted philosophy is to materialize in practice.

Desirable Curriculum Goals

Providing a satisfactory curriculum in twentieth century Nashville and Davidson County is much more complex than many people realize. Some people consider the curriculum problem to be merely the establishment of a list of subjects which children take at different grade levels. The term curriculum as used in this report covers the entire organization of educational experiences of a school.

Unless one has looked into the matter in some detail, he is not likely to see that the kind of educational experience required in schools today needs to be very different from a generation or two ago. The increasing complexity of living in modern America is continuously producing pressures upon the schools for new things to be included in the curriculum.

Schools in the United States are unique in that they are a direct product of the ideals of the American people under their form of democratic government. Many nations in the past and some in the present have systems of education justified only insofar as they make direct contributions to the service of the nation. The educational systems of aggressor nations, for instance, become highly developed in the technical and scientific areas. A corps of highly skilled engineers and technicians in various industrial trades is essential to a nation anticipating international conquest.

Societies need education to perpetuate themselves in other respects.

The records of history show that nations do not flourish and survive exclusively on the strength of their military conquests. The strength of a society is measured as well in the development of its intellectual activities. This includes such areas as the fine arts, the humanities, and other aspects of a culture which have to do with the way human beings behave and organize themselves in relation to one another.

It is true also in American society that we have provided schools through public taxation for all to attend not only for the service to each state and the nation, but also for the general benefit of the democracy and the rights and freedoms to which we are dedicated. It has been recognized that democracies cannot survive with an illiterate electorate. It is equally clear that the international situation is such that the free world is now competing with forms of government which can exploit to the fullest the intellectual capacities of the people. In military terms, therefore, the defense of our society depends, as with aggressor nations, on our ability to develop to the fullest our human resources.

In the language of the economist, education is thus a productive good. That is to say, it pays citizens to spend money for education because there are definite returns to be derived. Citizens of Nashville and Davidson County vote funds for schools because they see that educating children, their own children and children of other people as well, pays off in the long run. When these children grow up and vote they will make more intelligent decisions. When they are old enough to earn a living they will be more productive if they are educated up to their capacities. As more productive workers, they will add to the total value of goods and services of the community, the state, and the nation, and will contribute to general economic welfare. More educated people have more complex wants. They prefer more sophisticated items of food, clothing and shelter. Moreover, they choose to purchase books, listen to fine music, take trips to points of interest and engage in a greater variety of recreational interests. They are better consumers of the products of commerce from which a large portion of our population earns a living.

So we are willing to support education financially because it pays, but this overlooks the most important reason for free public education in Metro. In a democratic society, it is one of the privileges demanded by the American people. We insist that education up to a certain level -- the opportunity to learn how to read and to write and to find out about our human physical environment -- is something the dignity of the individual in American democracy demands. The right to an education is thus akin to some of the other rights which we cherish, such as the right of freedom of speech or the right to trial by jury.

In looking back over the development of education in Nashville and Davidson County and in other school systems in the United States, it is not surprising to find changes coming from the pressures of a vigorously developing society. For example, strong reactions against child labor at the turn of the century resulted in compulsory school attendance laws. This brought more children into the schools.

As more and more children stayed on through the first eight years of the elementary schools, there were pressures for the admission of different types of students to the secondary school. Whereas the high school in America began as a college preparatory institution, many youth not intending to go to college now go through high schools taking the agriculture, the home economics, the vocational trades and industrial education, or business education courses added in the past half century.

The curriculum of our schools is complicated by the emerging technology of education itself. A science of education has been developing since 1900. For instance, intensive studies have been made of vocabularies and the frequency with which words are used in day-to-day reading, speaking, and writing. A generation or two ago textbooks prepared in schools included many words which were beyond the experience of the children using them in school. Now textbooks are prepared against word lists based on studies of frequency of use and level of difficulty of words, making learning and teaching more efficient.

There are many similar examples showing how a "technology" or a "science" of education is being established. A generation or two ago there were no scientific instruments for measuring the mental capacities of school children or objectively measuring their achievement in various subjects. We now have such instruments and better ones are being constructed every year. The area of child study has become a scientific field only during recent years. The curriculum becomes complicated partly, therefore, because we know more about what can be done to provide more efficient learning experiences. In short, the curriculum of our schools is highly complicated because (1) it must cover an accumulating mass of knowledge, (2) our people are demanding more and more of it, and (3) modern understanding of the teaching process itself shows that effective learning situations in a school need more than a textbook, desks for pupils, and a teacher.

The following five items define the major weaknesses of our schools in curriculum, for its major shortcomings can be classified in these areas. At the same time they may be viewed as goals or objectives, since they are ends which never are attained with complete satisfaction. Solutions to the problems which arise in attaining them are complex and change as time moves on. In a third sense these items may be considered as criteria or earmarks from which to judge our educational programs, for to the degree that a school program satisfies these needs, to that extent may it be judged to have an adequate curriculum.

1. The need to adapt to today's world. The basic skills of reading, writing and arithmetic will no longer suffice. It is necessary to lift the level of training not only to improve the preparation of persons for such professional occupations as engineering, law and medicine, but also to prepare technicians, workers, managers, and others at all levels to adjust in earning a living in a changing world. It is becoming more and more important to counteract the narrowness of professional and vocational education. For example, professional training for engineers, doctors

and lawyers is emphasizing more and more the necessity of broad, liberal education so that the specialist will be more effective by relating his special talents to the broader problems of society.

In colonial America, communities were more or less isolated, occupations were simple, consumer goods were simple, and man's contact with the social and material world was simple. We live in a period when rural America is disappearing; radio and television have put everyone in communication with the rest of the world and soon in communication with outer space. The high-powered automobile and the airplane have made us a mobile population. Few of us live our lives in the same county in which we were born. Educational needs in Nashville and Davidson County relate not only to the local community, but also to the entire State of Tennessee, the national community, and the world community. Mechanical contrivances continuously change what we do to earn a living and the things we do in our homes. When man is harnessing the electron and the atom, he changes the pattern of living for people in all walks of life, on the farms, in the factories, and in the market places with the products of a rapidly developing science.

It is not only the concrete and the material aspects of civilization with which our curriculums must keep pace. Schools must respond to changes in the spiritual, artistic, and social aspects of human affairs. It is increasingly recognized that the curriculum of a school should provide opportunity not only for learning facts but also for learning how to get along with people and how to develop as an individual. It is important to learn in school how to live as a satisfactory individual in a democratic society, as well as to learn history, geography, or arithmetic. In a questionnaire to Nashville and Davidson County teachers, only 18 percent rated their schools top in this criterion.

2. The need for emphasis upon intelligent behavior. The real mark of the educated person is his ability to think and to understand -- not just to know. To many people the time-honored "assign-study-recite" method of instruction seems entirely adequate. Some school systems attempt to organize their curriculums by making up courses of study, to outline in syllabus form the subjects to be covered at each grade level, and to specify the textbooks to be used. Under the standardized assign-study-recite plan it is assumed that children will learn all they need to learn. The difficulty with this is well known by most trained educators and teachers. The learning of isolated facts, the memorization of data, or simple rote learning is not education. The severest critics of our schools are those who claim that our graduates cannot think. This is a danger of instructional methods which do not give children and youth an opportunity for original experiences in the solution of real problems. It takes a carefully worked out curriculum plan for a school system and a very able teacher to provide a learning situation which emphasizes intelligent behavior as the main objective ot the school.

Studies show that isolated facts are rapidly forgotten. It is important that facts and knowledge be acquired in a manner which relates them significantly to some end and which contributes to learning how facts may be useful in intelligent human behavior. This means that holding school simply for the purpose of creating the ability to recall certain things is not enough. It does not mean that the tools of knowledge, skills in the use of numbers, and ability to read are not essential.

Twenty-nine percent of Nashville and Davidson County teachers rated their schools "excellent" on this criterion. Fifteen percent rated schools "fair to poor" on this item.

3. The need to recognize variation in humans. Most education takes place as though all human beings were alike in their intellectual makeup. It is easily demonstrated that just as children in the sixth grade differ in height and weight, they also differ greatly in what should be expected of them, let us say, in learning such phenomena as how it is possible to place a man-made satellite in space.

This basic consideration has been one of the most explored contributions of twentieth century educational psychology. Many types of educational devices have been introduced to accommodate instruction to the greatly varying interests, needs, and capacities of school children. Unhappily, in many schools little is done about it, or simple solutions are undertaken which do not work. In the vast majority of sixth grades, for instance, boys and girls are assigned most of the time the same learning experiences, completely disregarding the knowledge of the great variation in their needs. This target, this imperative need of a curriculum, is an exceedingly critical one because failure to accommodate it results in considerable waste. We only recently have begun to realize that we are not developing some of the talent of our potential doctors, lawyers, scientists, engineers, and other highly skilled persons. We must, on the one hand, find potential scientists and engineers and equip them,for instance, with much of the mathematics now taught in the first two years of college. This is a prescription which, on the other hand, would make little sense for the vast majority of high school students. Many students are being exposed to standard doses of algebra and geometry not needed as a foundation for further studies they will pursue, not useful in practical aspects of daily living, and which do not give them some insight into the order and system of mathematical thought.

The gearing of the curriculum and the instructional program to the average can lead only to mediocrity. Time is wasted of those above average and those below average in aptitude and ability. The perfect solution to the variation of human capacities is the designing of a curriculum for each individual child -- for no two of them are alike. There is no reason why the youngster who is not going to college cannot have a learning situation geared to his needs, and at the same time, why the unusually gifted child cannot be found and given the types of learning tasks suited to his needs.

Only 15 percent of Nashville and Davidson County teachers consider "excellence" to have been reached on this goal. More than one teacher in four rated their schools "fair to poor" on this item.

4. The need to provide proper conditions of learning. One of the great needs of our instructional programs is to provide the kind of environment conducive to genuine learning. A continuously dull and repetitive textbook recitation situation, as all experienced teachers well know, is like a vaccination -- sometimes it does not take. It is not sugar-coating education to set the stage properly so that children are motivated and develop an eagerness for learning.

An effective curriculum is one in which boys and girls are eager, enthusiastic as they look forward to the learning experiences of the coming period or school day. This situation requires a great deal of professional skill on the part of the personnel of a school. In such schools, it is recognized that learning takes place at its greatest rate where there is proper motivation. There is also a balance between the necessity of control in the mass education situation and the need for freedom of children to develop both as individuals and as members of a group. Neither an over-regimented nor an over-relaxed environment results in efficient learning.

Of the five principles, this was rated lowest by teachers. Only 13 percent of teachers in Nashville and Davidson County feel that the learning environment in their schools is as good as it should be in motivating pupils and students and maintaining and stimulating interest.

5. The need to provide adequate learning facilities. Observations made above lead to the conclusion that an effective curriculum is one which makes use of a variety of devices for learning. Youngsters in elementary and in secondary schools can best learn scientific phenomena when they have access to materials of the natural sciences -- plants, animals, chemicals, electricity, pulleys, models, etc. Yet the bulk of science instruction up through the ninth grade in American schools denies boys and girls the privilege of examining by themselves how some of the principles of science work. A typical ninth-grade general science instruction program is primarily devoted to studying and reciting out of a textbook with occasional demonstrations by the instructor. The only remedy is the provision of materials. The situation is similar in other fields of learning.

In recent years, a wealth of teaching aids has accumulated - visual aids on all subjects from the electron to the opera. Some schools in teaching social studies actually have on file copies of state legislation, local ordinances and charts and diagrams showing the organization of state, local and federal government. Many classes in social studies conduct opinion polls in their community. A good measure of the enrichment of the curriculum is the degree to which physical facilities for teaching depart from the exclusive dependence on the textbook.

With the impetus of the NDEA program both school systems have moved forward in providing more visual aids for teaching. Also the Channel No. 2 ETV program is a step forward in this area. Almost a third of teachers in Nashville and Davidson County considered their schools "excellent" on this criterion. Yet even here, there is much more progress to be made.

V

SUBJECT MATTER ACHIEVEMENT LEVELS

One (and only one) of the evidences of the effectiveness of an educational program is results of standardized achievement tests. This section of the report covers an analysis of such data in the Davidson County and Nashville City systems.

Measures of Academic Achievement: Elementary Schools

Both the Davidson County and the Nashville City school systems administered the Metropolitan Achievement Test in grades 1-8 during the school year 1961-62. Inasmuch as the date of test administration for the Metropolitan Achievement Test batteries varied from grade to grade and from one school system to the other, it was necessary to convert all of the "grade placement" scores into corresponding "acceleration" or "retardation" scores for each particular subgroup "as of the date of testing" for that particular subgroup.

Composite Achievement Scores. Table 3 contains composite (i.e., average of all school subjects) achievement scores in the elementary schools of the Nashville (N) and Davidson County (D) school systems. The conversion of grade placement averages into "acceleration" or "retardation" scores (expressed in units of one-tenth of a grade) permits meaningful intergroup comparisons as related to (a) race, (b) school system, (c) socio-economic status of the school community of individual schools, and (d) "best" and "poorest" total performance in individual schools in both school systems (Table 4).

Achievement in Relation to Race, School System, and Socio-Economic Status. The data in Table 3 warrant, among others, the following conclusions:

a. With one exception (i.e., sixth-grade Negro enrollees in both systems are equally retarded -- 1.3 grades each) white and Negro enrollees in the Davidson County schools have more favorable achievement test scores than do Nashville enrollees of the same race and grade level. The amount of comparative test superiority of County enrollees (i.e., as compared with City enrollees of the same grade level) tends to be much greater among whites than among Negroes, especially in grades 5, 6,7 and 8.

b. With one exception (i.e., first-grade Nashville enrollees of

TABLE 3

"ACCELERATION-RETARDATION"* SCORES IN GRADES 1-8 OF METRO SCHOOLS, BY RACE OF ENROLLEE AND BY SOCIO-ECONOMIC STATUS OF THE SCHOOL COMMUNITY OF INDIVIDUAL SCHOOLS, 1961-62

Groups compared	School system	Grade							
		1	2	3	4	5	6	7	8
Race of enrollee									
White	County (D)	.2	.4	.5	.5	.6	.6	.8	.5
	City (N)	-.1	.1	-.1	-.1	-.3	-.1	-.7	-.6
	D-N difference	.3	.3	.6	.6	.9	.7	1.5	1.1
Negro	County (D)	0	0	.1	-.6	-.8	-1.3	-1.5	-1.7
	City (N)	-.1	-.1	-.7	-1.2	-1.3	-1.3	-2.0	-2.2
	D-N difference	.1	.1	.8	.6	.5	0	.5	.5
White-Negro difference	County (D)	.2	.4	.4	1.1	1.4	1.9	2.3	2.2
	City (N)	0	.2	.6	1.1	1.0	1.2	1.3	1.6
Socio-economic status of school community									
Upper	County (D)	.5	.6	.9	.9	1.1	.7	.8	.4
	City (N)	.2	.7	.7	.7	1.0	.8		
Middle	County (D)	.2	.3	.3	.4	.3	.5	.3	.1
	City (N)	0	.2	-.2	.1	-.2	-.2		

TABLE 3 (Continued)

Groups compared	School system	Grade 1	2	3	4	5	6	7	8
Lower	County (D)	-.1	0	0	-.2	-.7	-.8	-1.5	-2.1
	City (N)	-.1	0	-.5	-.1	-1.0	-1.0		
Upper-Lower difference	County (D)	.6	.6	.9	1.1	1.8	1.5	2.3	2.5
	City (N)	.3	.7	1.2	.8	2.0	1.8		

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* These A-R (Acceleration-Retardation) scores show the mean amount of "acceleration" or "retardation" for the given group. Use of the negative sign ("-") before the number indicates retardation.

TABLE 4

COMPARISON OF HIGHEST AND LOWEST SCHOOLS ON COMPOSITE SCORES* ON METROPOLITAN ACHIEVEMENT BATTERIES BY GRADE LEVEL AND BY SCHOOL SYSTEM, 1961-62

Grade	Nashville City			Davidson County			Both systems		
	High	Low	Diff.	High	Low	Diff.	High	Low	Diff.
1	.6	- .5	1.1	.8	- .3	1.1	.8	- .5	1.3
2	1.5	- .5	2.0	1.1	- .3	1.4	1.5	- .5	2.0
3	1.0	- .9	1.9	1.8	- .4	2.2	1.8	- .9	2.7
4	1.3	-1.7	3.0	1.5	-1.5	3.0	1.5	-1.7	3.2
5	1.6	-1.3	2.9	2.0	-1.5	3.5	2.0	-1.5	3.5
6	1.6	-1.1	2.7	2.2	-2.1	4.3	2.2	-2.1	4.3
7	.9	-2.4	3.3	2.2	-2.4	4.6	2.2	-2.4	4.6
8	1.0	-2.5	3.5	1.7	-3.2	4.9	1.7	-3.2	4.9

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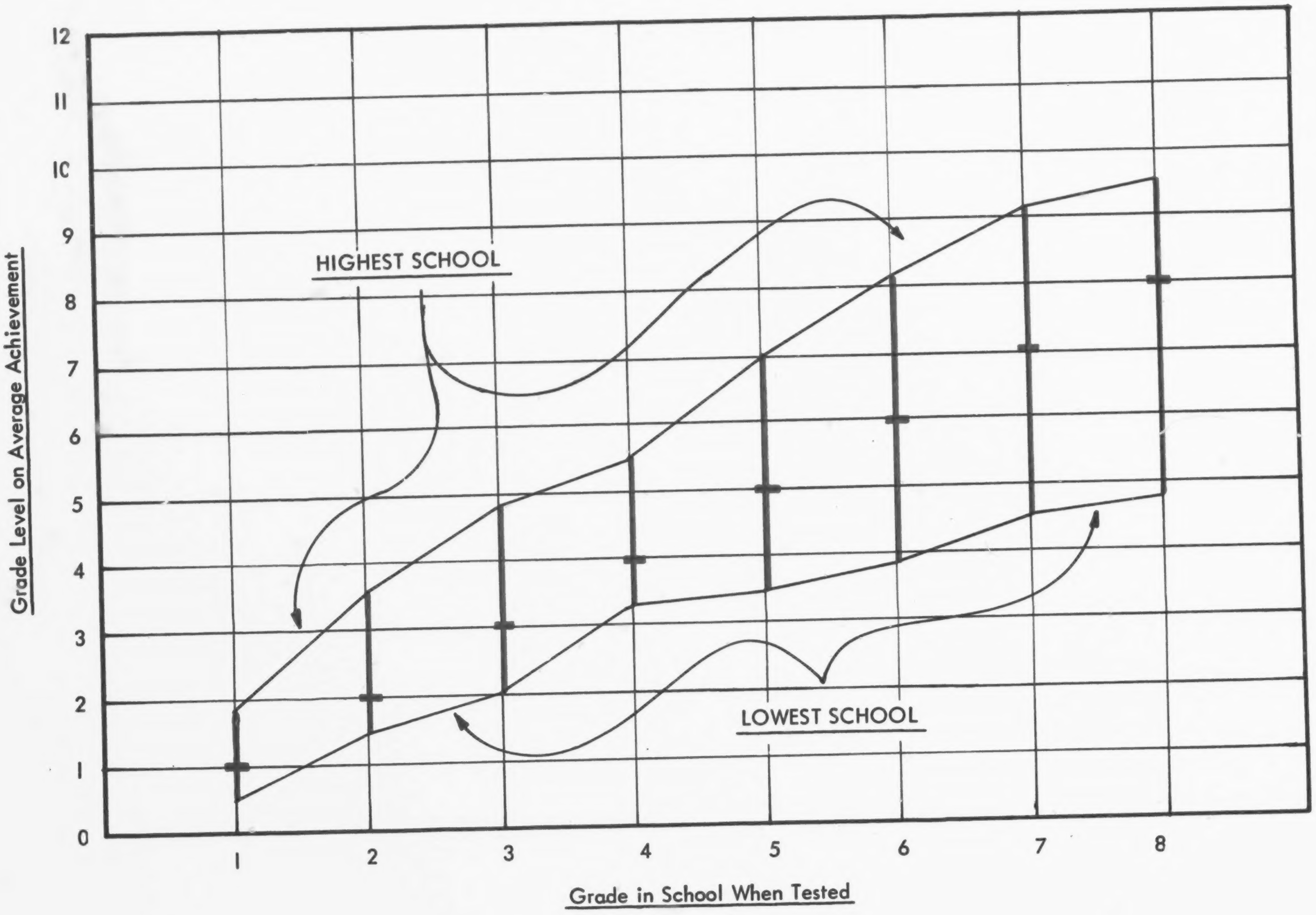
* Performance as here measured is expressed in terms of "acceleration" or "retardation" scores in units of one-tenth (.1) of a grade level. Scores preceded by a minus ("-") sign represents "retardation."

both races are equally retarded -- .1 grade) white enrollees in both school systems have more favorable achievement test scores than do Negroes of the same grade level in the same school system. For grades 5, 6, 7 and 8 the comparative amount of test superiority of white enrollees (as compared with Negro enrollees of the same level and school system) is noticeably greater in the County system than in the City system.

c. Among both school systems the level of socio-economic status of the school community of individual schools is positively associated with the mean level of test achievement of enrollees in such schools. For each grade level reported, City and County enrollees attending schools located in communities rated as being of "upper" socio-economic status have consistently superior achievement test scores as compared with enrollees attending schools in communities rated as having "lower" socio-economic status.

School Differences in "Best" and "Poorest" Achievement Scores. "Composite" (i.e., average of all subtest categories) scores in the several grades of selected individual schools in the Davidson County and Nashville systems are shown in Table 4. The mean differences between the highest composite score and the lowest composite score schools in the Davidson County system increase at each successive grade level. There is almost five years of difference in achievement by the eighth grade between the averages of the highest achieving school and the lowest achieving school in the County. Among Nashville schools there is a comparable general tendency for the gross magnitude of the difference (in test performance of "best" versus "poorest" schools) to increase at successive grade levels from grade 1 (difference of 1.1 grades) through grade 8 (difference of 3.5 grades). It is thus clear that the mean pupil achievement, as herein measured, varies greatly among the individual schools of each system. These interschool differences, as well as similar ones of lesser magnitude, deserve detailed study to determine causative factors involved and such remedial action by school authorities as may be indicated. To cite one example of an implication of the present findings, it is obvious that the problem of transfer of an eighth grade student to a high school may differ greatly according to whether his eighth grade (and total pre-secondary schooling) reflected a markedly "accelerated" or a markedly "retarded" achievement status.

"Best" and "Poorest" Performances in Elementary School Subjects. In further analysis of test results, a comparison was made between acceleration-retardation scores at each grade level for each of the subtests of the Metropolitan Achievement Battery. This permits an examination of areas in which performance is highest and lowest at each grade level. For instance, in the Davidson County system pupils in grade 1 are achieving highest in "arithmetic computation" and lowest in "word knowledge", as shown in Table 5.



COMPARISON OF HIGHEST AND LOWEST METROPOLITAN SCHOOLS IN ACHIEVEMENT AT EACH GRADE

TABLE 5

A COMPARISON OF "BEST" AND "POOREST" PERFORMANCE* IN VARIOUS METROPOLITAN ACHIEVEMENT TEST CATEGORIES IN THE DAVIDSON COUNTY AND NASHVILLE SCHOOL SYSTEMS, GRADES 1-8, 1961-62

Grade level	School system	"Best" performance		"Poorest" performance		"Best"-"Poorest" difference
		Subtest	Score	Subtest	Score	
Grade 1	Davidson	Arith. compt.	(.3)	Word knowledge	(.1)	.2
	Nashville	Word discrim.	(0)	Word knowledge	(-.1)	.1
Grade 2	Davidson	Spelling	(.6)	Word knowledge	(.2)	.4
	Nashville	Spelling Arith. compt. Arith. probl.	(.2) (.2) (.2)	Word knowledge	(-.2)	.4
Grade 3	Davidson	Language	(1.0)	Arith. compt. Arith. probl.	(.2) (.2)	.8
	Nashville	Spelling Arith. compt.	(.1) (.1)	Word knowledge	(-.5)	.6
Grade 4	Davidson	Reading	(.9)	Word discrim.	(.1)	.8
	Nashville	Arith. compt.	(-.1)	Word knowledge Reading	(-.8) (-.8)	.7

TABLE 5 (Continued)

Grade level	School system	"Best" performance		"Poorest" performance		"Best"-"Poorest" difference
		Subtest	Score	Subtest	Score	
Grade 5	Davidson	Language Lang. study skills	(.8) (.8)	Soc. st. st. skills	(.3)	.5
	Nashville	Arith. compt.	(-.1)	Word knowledge	(-1.1)	1.0
Grade 6	Davidson	Spelling	(.9)	Reading	(.4)	.5
	Nashville	Spelling Arith. compt.	(-.1) (-.1)	Word knowledge	(-1.0)	.9
Grade 7	Davidson	Lang. study skills Arith. probl.	(.6) (.6)	Reading	(.1)	.5
	Nashville	Arith. probl.	(-.4)	Soc. st.st. skills	(-1.6)	1.2
Grade 8	Davidson	Spelling	(.6)	Reading	(-.3)	.9
	Nashville	Arith. probl.	(-.5)	Science	(-1.7)	1.2
Mean A-R score	Davidson	Spelling Lang. study skills	(.6) (.6)	Word knowledge Word discrim.	(.3) (.3)	.9
	Nashville	Arith. compt.	(-.2)	Soc. st. st. skills	(-1.1)	.9

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* Performance, as here measured, is expressed in terms of "acceleration" or "retardation" scores in units of one tenth (.1) of a grade level. Scores preceded by a minus ("-") sign represent "retardation".

It is noted in Table 5 that Davidson County enrollees have "best" test performances in spelling (grades 2, 6, and 8), language (grades 3 and 5), and language study skills (grades 5 and 7). Conversely, Nashville enrollees have "best" test performances in arithmetic computation (grades 2, 3, 4, 5, and 6), arithmetic problems and concepts (grades 2, 7, and 8), and spelling (grades 2, 3, and 6).

"Poorest" test performances among Davidson County enrollees were in reading (grades 6, 7, and 8), word knowledge (grades 1 and 2), the two arithmetic subtests (grade 3), word discrimination (grade 4) and social studies study skills (grade 5). Among Nashville enrollees the "poorest" test performances were in word knowledge (grades 1, 2, 3, 4, 5, and 6), reading (grade 4), social studies study skills (grade 7) and science (grade 8).

These differences in test performance are attributable to one or more of the following factors: (a) variations in amount of instructional time devoted to the given school subject; (b) variations in competence of the instructional staff as related to the various school subjects; (c) variations in environmental stimuli which might influence the amount of interest which elementary students may have in a particular school subject. As part of the task of directing the instructional program in the new system, thorough study should be instituted to reconcile these differences. Where they are found due to conditions beyond control of the school system, an adequate demonstration of this is needed. If differences are due to undesirable imbalances in the instructional effort, such deficiencies should be corrected.

Measures of Academic Achievement: Secondary Schools

Achievement test data for the Davidson County secondary schools are available from the several subtests of the Cooperative English Test, 2A for enrollees in both grades 9 and 11. Arithmetic subscores in computation and in problems and concepts are available on Davidson County enrollees in grade 10. On all categories of the Cooperative English Test, ninth and eleventh grade enrollees in Davidson County schools fell 10 or more percentile points above national median scores. On each of the arithmetic subtests the performance of tenth grade Davidson County enrollees closely approximated the national norms (Table 6).

For the Nashville secondary schools the available achievement test data consist of the Iowa Silent Reading Test and the Essential High School Content Test -- both administered to tenth grade enrollees. On all of the categories of the Essential High School Content Test, the performance of Nashville enrollees fell approximately 10 percentile points below the corresponding national medians. Since the "spring" administration of the Iowa Silent Reading Test gave a mean performance score of only 10.0, it is evident that tenth grade Nashville enrollees fell several months below the national norm (Table 6).

TABLE 6

MEAN PERFORMANCES ON INDICATED TESTS
BY HIGH SCHOOL ENROLLEES IN SPECIFIED GRADES, 1962

Test	Grade	School System	Mean Percentile Rank
Coop. English, 2A			
Vocabulary	9	County	60
	11	County	63
Level of Comprehension	9	County	60
	11	County	65
Speed of Comprehension	9	County	64
	11	County	68
Total Reading	9	County	61
	11	County	68
Expression	9	County	59
	11	County	65
Total English	9	County	60
	11	County	65
Arithmetic			
Computation	10	County	(10.4)a/
Problems and Concepts	10	County	(10.5)a/
High School Content			
Math	10	City	42
Science	10	City	39
Social Studies	10	City	37
English	10	City	38
Battery Composite	10	City	38
Iowa Silent Reading	10	City	(10.0)a/

a/ Grade placement score

It is shown in Table 7 that white enrollees of both sexes earned mean percentile scores in all categories of the Essential High School Content Test which approximated the national medians. In contrast, Negro enrollees of both sexes earned corresponding mean percentile scores which fell near the first quartile on national norms.

As might be anticipated, enrollees attending schools in communities of "upper" socio-economic status earned markedly higher mean percentiles in all subtest categories than did enrollees attending schools in communities of "lower" socio-economic status.

School "Readiness". Analyses of the data relative to the Metropolitan Readiness Test (Table 8) indicate that both white and Negro enrollees in the first grades of Nashville City schools compare somewhat unfavorably with national norms. For example, there is appreciably higher percentage in the Nashville sub-populations than in the norm group of first graders categorized as "low normal" (excess -- whites, 4 percent; Negroes, 9 percent) and as "poor risks" (excess -- whites, 7 percent; Negroes, 21 percent). Comparison of the Nashville white and Negro first graders shows a higher percent of whites than Negroes in the favored categories ("superior" -- whites, 6 percent; Negroes, 4 percent; "high normal" -- whites, 19 percent; Negroes, 9 percent) and vice versa in the unfavored categories (i.e., "low normal" and "poor risk"). These findings are consistent with similar findings reported in the literature.

Average Intelligence Quotients. As might be anticipated from the inter-system differences in achievement test scores discussed in a previous section of this report, the sub-populations in the Davidson County system have aptitude scores slightly above the theoretical norm (i.e., IQ of 100) whereas the Nashville sub-populations have mean aptitude scores very slightly below this theoretical norm. For grades 5 and 8 (on which roughly comparable data are available), the magnitude of the inter-system differences (grade 5, 9 IQ points; grade 8, 11 IQ points) is about what might have been anticipated on the basis of the inter-system differences in measured achievement at these grade levels, as previously reported. It should be noted that the comparatively unfavorable status of aptitude scores among the Nashville sub-populations may be attributed partly to a much higher ratio of Negro enrollees in the Nashville system than in the Davidson County system. The high positive correlations which are typically found between standardized measures of aptitude and achievement may be presumed to exist in the present situation.

Differential Aptitude Tests. The data on the Differential Aptitude Tests administered in Nashville grades 9 and 11 (Table 9) are interpreted as warranting the following generalizations:

1. When enrollees in both white and Negro schools are considered separately, the Nashville sub-populations in grades 9 and 11 each

TABLE 7

MEAN PERCENTILE SCORES ON THE ESSENTIAL HIGH SCHOOL CONTENT TEST, BY SEX AND RACE OF TENTH GRADE ENROLLEES AND BY SOCIO-ECONOMIC STATUS OF THE SCHOOL COMMUNITY OF INDIVIDUAL NASHVILLE SCHOOLS,

FEBRUARY, 1962

Groups compared	Sex	Math	Science	Social studies	English	Battery composite
Racial status						
White	M	55	49	48	40	47
	F	49	46	44	52	48
Negro	M	27	30	26	22	25
	F	28	30	23	32	30
White-Negro difference	M	28	29	22	18	22
	F	21	26	21	20	18
Socio-economic status						
Upper	M	67	60	58	54	60
	F	70	65	59	74	70
Middle	M	57	51	51	47	50
	F	46	48	42	50	46
Lower	M	33	34	30	27	29
	F	36	33	30	37	33
Upper-lower difference	M	34	26	28	27	31
	F	34	32	29	37	37

TABLE 8

PERCENTAGE COMPARISON OF THREE GROUPS AS BASED ON THE DISTRIBUTION OF METROPOLITAN READINESS TOTAL SCORES AMONG "SUPERIOR," "HIGH NORMAL," "AVERAGE," "LOW NORMAL," AND "POOR RISK" CATEGORIES OF EXAMINEES, NASHVILLE CITY SCHOOLS

Test Group	Metropolitan Readiness categories					
	Superiors	High normal	Average	Low normal	Poor risk	Total
Norm (National)	5	25	35	30	5	100
White (Nashville)	6	19	29	34	12	100
Negro (Nashville)	4	9	22	39	26	100
Norm - White diff.	-1	6	6	-4	-7	
Norm - Negro diff.	1	16	13	-9	-21	
White - Negro diff.	2	10	7	-5	-4	

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* The basic data were obtained from Report of City-wide Testing Program, 1961-62, prepared by the Division of Psychological Services, City Public Schools, Nashville, Tennessee.

TABLE 9

MEAN PERFORMANCES ON THE VARIOUS CATEGORIES OF THE DIFFERENTIAL APTITUDE TEST: BY RACE AND SEX ON NINTH AND ELEVENTH GRADE ENROLLEES AND BY SOCIO-ECONOMIC STATUS OF THE SCHOOL COMMUNITY OF INDIVIDUAL NASHVILLE SCHOOLS, 1961-62

		Verbal reasoning		Numerical ability		Abstract reasoning		Composite score	
Groups compared	Sex	Grade 9	Grade 11	Grade 9	Grade 11	Grade 9	Grade 11	Grade 9	Grade 11
Racial Status									
White	M	42	43	42	47	43	38	42	42
	F	42	40	42	48	41	38	42	43
Negro	M	20	15	19	15	26	20	22	17
	F	14	14	15	18	26	27	18	20
White-Negro difference	M	22	28	23	32	17	18	20	25
	F	28	26	27	30	15	11	24	23
Socio-Economic Status									
Upper	M	57	65	60	60	53	50	57	58
	F	63	55	63	60	55	55	60	57
Middle	M	37	50	37	50	40	40	38	47
	F	41	43	42	45	41	35	42	41
Lower	M	23	24	22	27	22	28	25	26
	F	17	20	17	28	28	30	21	26
Upper-Lower difference	M	34	41	38	33	31	22	32	32
	F	46	35	46	32	27	25	39	31

compare unfavorably with the norm groups on the verbal reasoning, numerical ability, and abstract reasoning categories of the Differential Aptitude Test. The mean performances of white enrollees of both sexes fall about 10 percentile points below the national norm, whereas the mean perfomances of Negro enrollees of both sexes fall near the second or third deciles of the national norms.

2. Sex and grade differences in the three DAT categories are of slight magnitude and are considered to be of inconsequential predictive significance.

3. Among both sexes, enrollees in schools rated as of "upper" socio-economic status earned notably higher mean percentile scores on each of the three DAT categories than did enrollees in schools rated as of "lower" socio-economic status.

Summary

Generalizations from test results are as follows:

1. Achievement in the Davidson County schools (both races combined) is above the norms consistently at all grade levels and becomes slightly greater up through grade 6. At grades 7 and 8 there is a tapering off. This is to be explained by the marked decline in Negro achievement in the upper grades. White pupils continue to exceed the norms by progressively greater amounts right through grade 8.

2. Achievement in the Nashville schools is progressively farther below the norms grade by grade for both white and Negro pupils, but lower for the Negro than for the white pupils. For both groups the drop was sharpest in grades 7 and 8.

3. In both districts the achievement is strongly correlated with mental ability. In turn, both achievement and mental ability are correlated with socio-economic conditions in the neighborhood.

4. The data on differences among schools suggest the even greater differences which prevail everywhere within schools, and within grades and classrooms within schools. It is not unusual to find within a given sixth grade in a single school as many as eight years of difference in achievement levels of pupils in some subjects. Some of this is due to under-achievement and some is not. Where

it is under-achievement, there should be staff time of teachers and psychologists when necessary, first to identify under-achievers and second to launch the appropriate remedial program. Aptitudes, interests and needs of humans differ. Pupils should not be expected to learn all the same things in the same amount. However, to the degree that important levels of learning fall far short of capabilities and needs of pupils, to that extent there is waste of human resources. Because of the vast observable difference in achievement levels, particularly in the upper grades, which is in part attributable to differences in the nature of human beings, schools generally have a continuous struggle in finding ways to get to the learner as an individual. Differentiated curricula, small classes, homogeneous grouping, techniques for individualized learning, psychological services and special schools are but a few of the ways in which schools attempt to counteract the effects of mass education typical of large school systems.

5. One cannot escape the impression that the schools of both Nashville and Davidson County set great store by drilled learning. Excellence in spelling and in arithmetic computation predominate at all grade levels in both systems and among both white and Negro pupils. Relative excellence in these areas is generally symptomatic of memoriter teaching and learning. The highest levels of learning go far beyond acquisition of basic skills, as important as they may be. Education for effective citizenship entails the development of concepts and understandings, powers of reasoning and thinking, and other skills and knowledge enabling individuals to adapt to a changing world. This level of excellence in education is not to be expected in schools not adequately staffed with properly qualified teachers, or in schools with large classes and insufficient facilities and services to assist teachers in their tasks. This carries considerable implications for future budgetary requirements of the new Metro School System, as well as for a type of administration which, through research and development, curriculum planning, instructional management, in-service training and the like can produce highest returns for expenditure.

6. The relationship between low achievement and low neighborhood socio-economic level is not a recent discovery. There is considerable experimentation throughout the country with doing something for "culturally deprived" school children. High rates of delinquency and low levels of employability in the labor force represent an undesirable burden to a community economically and socially. A program of amelioration of conditions in the Nashville-Davidson County Metropolitan School System is partly a problem beyond the scope of the school system. However, the school system must

assume an important role in the work of community development, since education is a strategic aspect of any type of improvement in any society. This means good working relationships with all departments of the Metro Government concerned with urban renewal and other aspects of community development. One conclusion is evident, namely: the new Metro School System will most certainly fail in its goal of "equal educational opportunity" to the extent that the problem of low-achieving pupils in less fortunate neighborhoods is attributable to (a) substandard facilities and services or (b) educational practices not adapted to the peculiar requirements of such schools.

VI

THE ELEMENTARY SCHOOL PROGRAM

The elementary school programs as observed in Nashville and Davidson County give evidence of the following strengths which are commendable:

1. The principles of child growth and development are recognized as the basis for curricular planning and improvement.
2. The individual differences among children are generally recognezed and provisions frequently made for them.
3. The program of instruction includes the language arts, mathematics, social studies, science, health, safety, physical education, music and art.
4. Instruction in the basic skills, including reading and the other language arts as well as mathematics, is comprehensive and effective.
5. Considerable attention is given to instruction in the social studies.
6. A variety of creative activities observed by the survey staff is evidence of a desirable trend in expanding types of learning experience.
7. Children are learning and practicing appropriate, courteous behavior.
8. Children have opportunities to work together, plan, accept responsibility, make decisions, and evaluate work done -- all important in a democratic society.
9. Field trips, resource persons, centers of interest, collections, books, and audio-visual materials are generally used effectively.

The Curriculum and Instruction

The educational philosophy of each system has been clearly stated and consistent with the purposes of education in a democracy. Certain techniques, mentioned in the Davidson County statement, such as "strong discipline, ability grouping and a reasonable amount of homework" need to be clarified. Observations in the schools indicated a wholesome, pleasant atmosphere based on positive approach -- guidance in developing self-direction and discipline.

Ability grouping, while mentioned in the philosophy of only one of the systems, seems to be practiced in both the City and County systems. Research evidence indicates that no one pattern of organization results in a higher degree of academic achievement for all children. In order to attain the values stated in the philosophies, it is important, therefore, that the schools evaluate grouping practices and different plans of organization for evidence of growth in all areas as well as academic achievement.

In merging the two systems, one philosophy should be developed and stated. It is urged that such a statement be used as the basis for giving direction to and evaluating the school program. As indicated in Chapter IV, stating a philosophy is one thing; putting it into practice is another.

Subject Matter Areas. The content of subject matter areas in the elementary schools of both systems seems to be similar, appropriate, and organized effectively. There are two exceptions which require consideration.

The social studies program in both the County and City seems to be strong. The elementary curriculum guides in social studies for the County were developed in 1954 while those in the City are more recent -- completed in 1961. Especially helpful are the materials developed for use in studying Nashville, Davidson County and Tennessee. There is evidence also that the work at various grade levels is not confined to the "themes" once used widely, especially at the primary level.

The social studies in both systems seem to follow a similar pattern except at the sixth-grade level. In the City system the theme is, "The World, Emphasizing Neighbors Across the Atlantic Ocean." The cradles of civilization in the Middle East, Greece and Rome, Europe in the Middle Ages as well as modern Europe and Africa are included. In the County these topics are, in general, delayed until the seventh grade and the theme, "Neighbors on the American Continent" used in the sixth grade. The content at the sixth-grade level in turn effects the seventh grade content.

According to the topics listed, the themes used by both the City and County are appropriate. It is important, however, that consideration be given to this situation and a decision made as to the content to be used in the Metropolitan School System.

The second subject area in which there is now a difference is in arithmetic. The County system has already introduced the "new mathematics" in some of the grades and has secured new textbooks. In the City, plans have been made to introduce the "new mathematics" in the fall, yet textbooks have not been made available. With the current emphasis on mathematics, the systems are to be commended for introducing the newer methods. It is important, however, that plans be made for the systematic introduction of "new mathematics" into grade levels where it is not now used and that provision be made for textbooks using this approach.

Special Areas. In terms of special teachers employed, different areas have been selected by the two systems. In the City system special music teachers are employed for the schools as well as four music supervisors. There is one supervisor for the system in physical education and a coordinator of health. In the County system, physical education teachers are employed for the schools along with a supervisor of health and physical education. Two music supervisors serve the system. The elementary teacher needs the help of special teachers, but the area of help and plan for using the special teacher varies from school to school. It may well be that faculty members in one school feel adequate in music and prefer a special teacher in physical education.

Rather than either system adopting the plan of the other, it is recommended that consideration be given to the following plan: Allocation of a certain number of service units (teaching positions) to a school or group of schools on the basis of the number of teachers; designation of subject matter areas in which the units may be used (for example, music, art, physical education); permission for the school under direction of District Assistant Superintendents to determine the area in which the service unit or units will be used. In this way the special teachers may be utilized to strengthen the program in each school in areas where the need is the greatest.

Instructional Materials. Audio-visual services and materials seem to be effectively administered and used in both systems. Every effort should be made to maintain the high quality of this service and to provide new instructional media as they become available.

The textbook situation appears to be quite different in the two systems. In the City the textbooks seem to be used as long as possible. This policy has resulted in the use of some out-dated textbooks. When the rapid changes and progress in areas such as science, mathematics and social studies are considered, it is not wise for children to be studying from texts that are out-of-date. Such a practice results not only in waste of time, but in misinformation. Funds for textbooks in both systems are inadequate even though local sources are used to supplement state allocations.

The County system seems to have been able to provide more adequately for newer textbooks. In merging the two systems, it will be necessary to make provision for an adequate supply of current textbooks.

Elementary Libraries. The library is considered the heart of a good instructional program. Yet, in neither the County or the City is provision made for elementary librarians. In some of the County schools there is a librarian, but the salary is paid by the local school community. Other than in these schools, teachers assume the responsibilities of a librarian. Some of the teachers are trained as librarians while others are not. These teacher librarians must assume responsibility for their own classrooms and do the library work when time permits. This means that the mechanics of the library may be cared for in after-school hours, but during the school day the library is available on a self-service basis. Teachers may bring pupils to the library and help them, but if students come for committee or individual assignments, there is no one to guide them. In some of the schools, parents assist with clerical work in the libraries. Full-time, trained librarians are needed to develop planned programs of reading guidance and of teaching the use of the library.

The City system employs a Director of Library Service while the County employs a Supervisor of Materials of Instruction and a County Librarian for the professional library. Both systems are to be commended on the provision of space for elementary libraries and the encouragement given to teachers to render library service. Centralized processing of books is done by the City, which relieves the teacher librarians of this task. Such a service is not available in the County.

Library funds are not adequate to purchase all the materials needed. Each school has a major project, annually, in order to raise money for the materials. Much time and effort on the part of the school and community go into such projects. Dependence upon this type of fund raising causes variation in the quantity and quality of materials among the schools. Financially, some communities are better able to support projects than others. If such funds are justified, then budgetary provisions should be made and the schools relieved of this responsibility.

Increasing public demands on pupils and teachers for quality academic achievement are further indications of the need for increased professional services from librarians in schools. In providing for gifted children or for slow learners, as well as for the average in the schools, adequate library materials and services are a necessity.

It is recommended that plans be made to provide trained, full-time elementary librarians. The Cooperative Program in Elementary Education, Southern Association of Colleges and Schools, recommends a part-time librarian or instructional materials person in schools with seven to 14 full-time teachers and a full-time such person in schools with 15 or more full-time teachers.

Centralized purchasing and processing of materials for local school library use should be considered. There should be realistic consideration of needed personnel, materials and services to support an adequate instructional program. There must be recognition that these services cost money, and there must be community understanding of the need for these expenditures and willingness to pay for this essential part of a good school program as part of the regular school budget.

Educational Television. The two systems are to be commended for outstanding work in educational television. The cooperative planning done by the general manager of ETV and the committee representing both school systems has resulted in an ETV program which is of high quality and is responsive to the needs of the schools. There is evidence of the following strengths:

1. ETV is accepted as a means of supplementing the instructional program. It is not the program.

2. Emphasis is placed upon the role of the teacher in preparing the students for the ETV program, viewing the program with the students, arranging for follow-up activities and instruction, and in evaluating the programs.

3. Instructional materials and guides are made available to the teachers.

4. Scheduling is planned in such a way as to facilitate utilization of ETV as a part of the regular program. Science, for example, is not taught everyday. This provides time for additional instruction by the teacher which may be needed by some groups and for creative activities related to the topic. For the first two grades, the programs are not keyed to a specific subject area, but provide learning experiences of a more general nature. The teacher can utilize this enriching background information in various aspects of the program without feeling that she must "keep up" with ETV.

In the continued development of ETV it is recommended that the same high quality of work and the cooperative planning be maintained. Consideration should be given to the use of ETV in the classroom, especially in regard to the heights of the TV sets for younger children, the climate of "listening" during ETV, the development of listening and viewing skills, and the improved utilization of ETV as an instructional medium.

Organization for Curriculum Development

The systems are to be commended on the plans for curriculum development which are in use and which utilize the following processes: Curriculum Council or committees with representation from professional and lay groups; committees of local teachers and a consultant for development of curriculum guides and resource units; supervisors designated as coordinators of the Curriculum Council; meetings for discussing new curriculum guides with principals, experienced teachers and teachers new to the system; in-service meetings using outstanding speakers; general elementary supervisors; and supervisors in areas such as music, art, and physical education as well as consultants in special subject areas in the City system.

The use of such techniques and processes has resulted in a strong elementary school program; the production of many curriculum guides and resource units; well-organized and planned In-Service Education Days and meetings; and the involvement of people. It is important, however, to examine features of the program in terms of coordinated effort, the use of time, and the degree of involvement of many people.

Production of Curriculum Materials. In order to produce curriculum materials of the quality and quantity necessary for a good instructional program, considerable time is required. The process is continuous, and in order to keep the material current and up to date, a large school system must produce considerable amounts of its own printed curriculum materials. Even with all the efforts and activity, some of the guides in the City have not been revised recently. For example, the Instructional Guide in Language, Number Work and Reading Grades One, Two and Three carries the date 1943. A Cumulative Course of Study in the Language Arts (Intermediate Grades) was produced in 1956. The social studies materials are more recent, but with the rapid changes in society, revisions will soon be necessary. According to the list of curriculum study guides for the County, most of them carry dates from 1954 - 1957. The science guides have been revised recently, but in order to keep abreast of change this revision will soon be outdated.

The participation of teachers in the production of curriculum materials is generally recommended as a technique for involving teachers and helping them to understand the purposes and plan for the curriculum and to facilitate the uses of the guides. When the total number of teachers in the systems is considered, the percentage participating in the production of materials is very small. The involvement, then, for the large majority of teachers becomes a process of being introduced to curriculum guides and instructed in their use -- in other words, passive rather than active involvement. Too often, the teacher and principal are involved in using the guides and units expected, rather than studying the children in the classroom and the immediate school community, as well as the latest curriculum developments, and planning for instruction which best meets the particular needs. All too often this has resulted in the same curriculum for all without due consideration for variations in the needs of each group of children -- gifted, slow, or average.

Role of Supervisors and Consultants. When the supervisors or consultants serve as consultants for the various curriculum production committees, their other supervisory functions are seriously curtailed. Participation in the writing, editing, and producing of materials requires considerable time which tends to divert attention from keeping abreast of latest developments, visiting in classrooms, and working with individual schools in undertaking and evaluating innovations and adaptations in curriculum development.

This situation is especially true in view of the load carried by supervisors and consultants. In the City schools one person serves as consultant in mathematics and science, both subjects of great concern today. Another serves as consultant in English, and as executive secretary for the Curriculum Council and the In-Service Education Program. In the County, where there are no consultants for special subjects, the elementary supervisors must assume this responsibility along with the supervisor for grades 7 - 8, who also serves as curriculum coordinator.

With the number of supervisors and consultants available and the load which must be carried in a system of 2,980 teachers, the reasons for such procedures as described are readily apparent. The supervisory personnel are to be commended on the very fine job which has been done with very heavy responsibilities. More active participation by more teachers and principals will require the consultant help of additional personnel with time to perform this function.

Impact of the Learning Situation on Pupils

One method of checking on the conditions for learning in a school is to obtain responses from pupils themselves regarding the things they do, the things expected of them, and their general activities during formal schooling periods. In the present survey the sample of fourth- and sixth-grade classrooms, involving 1,201 pupils, was covered by means of a paper and pencil device. The device permitted four scales characterising the general learning situation of classrooms as reflected by the reports of students themselves.

One of these scales relates to the extent to which (as seen by pupils' daily experience) instruction is varied for different pupils. A second scale deals with the degree to which classes are organized in various ways to provide various types of learning situations. A high score is achieved on this scale by a class in which there is not only a teacher-recitation situation, but also opportunities for pupils to work with one another, and generally procedures which are not entirely regimented. A third scale relates to opportunity for student motivation. It reflects the degree to which pupils have an opportunity to participate in making strategic decisions about what is to be accomplished in their work, instead of slavishly following instructions determined by the teacher. The last scale reflects the degree to which learning experiences in a class are not dependent solely upon a single text book. [1].

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[1] Based upon techniques reported in Francis G. Cornell, Carl M. Lindvall,

Joe L. Saupe. An Exploratory Measurement of Individualties of Schools and Classrooms. University of Illinois: Bureau of Educational Research, 1953. 71p.

The results show that, although there is considerable variation from class to class in the Nashville City school system and in the Davidson County school system, schools are in general above average of other schools in which this technique has been used in the degree to which the classroom situations have departed from the rigidity and sterility associated with schooling of one or two generations ago. It is to be observed that schools scoring high on these measures tend to be schools scoring high on many other aspects of quality in education in its comprehensive sense. Classes in which this measurement took place showed average or better learning conditions on the scales used.

Table 10 summarizes the scores of the 39 classrooms in which the measurements were made. The 19 fourth-grade classrooms and the 20 sixth-grade classrooms are grouped according to how they rank with other classrooms in quarters. For instance, one-fourth of the 39 classes would be expected to be classed in the highest group, if there were proportionately no more and no fewer high scoring classes than in other schools. The first column of figures shows that we would expect approximately an even number of classes in each of the quarters. However, as may readily be seen, the Nashville and Davidson County classes tended to fall disproportionately high in the upper quarters. For example, there were 29 of the 39 classes, or approximately 75 percent of them, in the two above-average groups in which only 50 percent would normally be expected. The distributions for both the fourth grades and the sixth grades follow this pattern as shown in the table.

A sidelight of this measurement is that this characteristic of classroom learning environment is unrelated to class size, at least within the range of enrollments of classes in this sample. The very highest score was achieved in a fourth-grade class with 32 pupils. The very lowest score was encountered in a class enrolling only 25.

Both large-sized classes and small-sized classes attained above-average scores. In other words, there was practically no relationship between size of class and measures by this device. The subject of quality of instruction is therefore attributable to other factors than class size, such as the experience, ingenuity, skill and personality of the individual teacher and perhaps other factors such as the nature of supervision and amount of assistance teachers receive in planning and conducting their instructional programs.

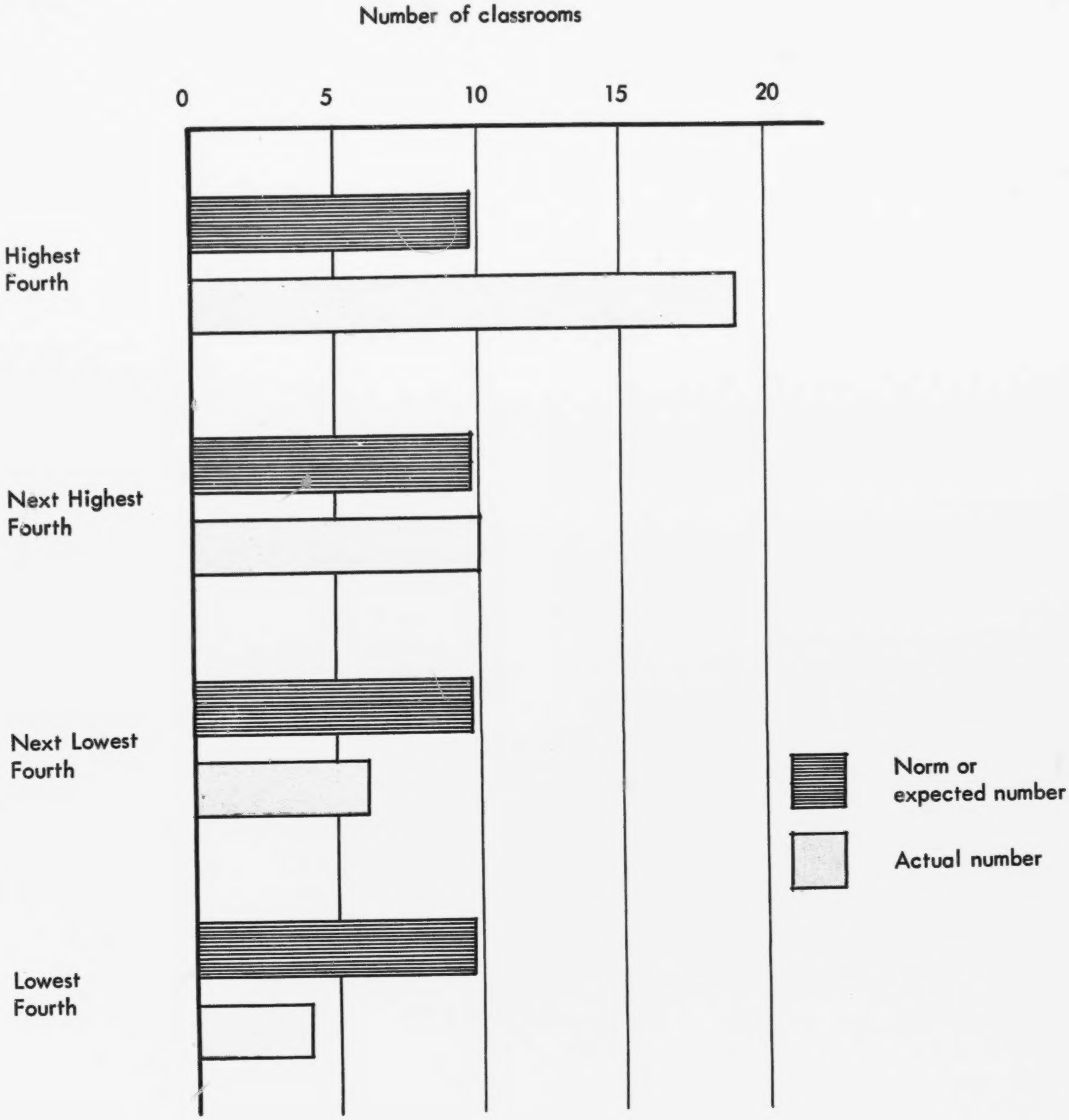
The Subject of Class Size in Elementary Schools

The size of classes in elementary schools is of considerable pertinence

TABLE 10

RESULTS OF STUDENT PERCEPTION INVENTORY ON CLASSROOM PRACTICES IN GRADES FOUR AND SIX

Quarter	Number of classes			
	Both grades		As measured	
	Expected	Measured	4th grade	6th grade
Highest (above Q_3)	9.75	19	8	11
Next highest (Md - Q_3)	9.75	10	5	5
Next lowest (Q_1 - Md)	9.75	6	3	3
Lowest (Below Q_1)	9.75	4	3	1
Total	39.00	39	19	20



HOW 39 SAMPLE ELEMENTARY SCHOOL CLASSROOMS RATED ON QUALITY OF CLASSROOM PRACTICES

not only with reference to the quality of the instructional program, but with reference also to the financial implications of number of teachers required.

The Situation in the Metro District. The situation in the Nashville and Davidson County school systems is summarized in Tables 11 and 12. In Table 11 we notice that of 1,542 classes in Nashville and Davidson County there are many between 25 and 39, but also some with 14 or fewer pupils and some with more than 44 pupils. We also note in Table 11 that over 25 percent of these classes enroll 35 or more pupils. As a matter of fact, the bulk of these are in the Davidson County system. This is also evident from Table 12, which shows median class size by grades in the two systems. At each grade level the median in Davidson County exceeds that of Nashville.

Rational Limits to Class Size. The professional literature on size of class in elementary and secondary schools is of two major types -- that depending upon the judgment of educational groups or individuals, and that based upon objective analysis. By far the majority of reports based upon considered judgment emphasize small classes. However, this is not by any means a clear-cut issue.

It is generally considered desirable to have classes of no larger than 25 and a maximum of 30 in both elementary and secondary schools. Because of the almost constant supervision required of younger children, kindergarten classes of not more than 20 under one teacher (25 maximum) are usually recommended. Because of the greater amount of individual work in art, home economics and shop courses, classes of 20 to 25 are usually recommended for these subjects. Modern programs of physical education are said to be possible only in classes of about 35. The bulk of the justification for these optimum class sizes rests on certain assumptions regarding what good education is.

It is reasoned that the best school is one in which the emphasis is on providing the environment for learning rather than on providing conditions for teaching. One of the most impressive accomplishments of twentieth century psychology has been the exploration by scientific means of the vast differences which human beings possess in ability to learn, and the great variety of ways in which humans learn best. Efficiency in teaching is thus viewed as success in understanding the differences in the equipment that pupils have for tackling each learning task and the different learning environments which pupils require to develop their potentialities best.

This centers attention on individual pupils and not upon the class as one single aggregate. This is in contrast to the mass education which the American ideal of free public education for all children and youth brought about -- largely by force of necessity rather than through choice. Because of individual differences the regimented, mass-education methods of large classes have come into disrepute.

It has been demonstrated that the lecture method is suitable in some

TABLE 11

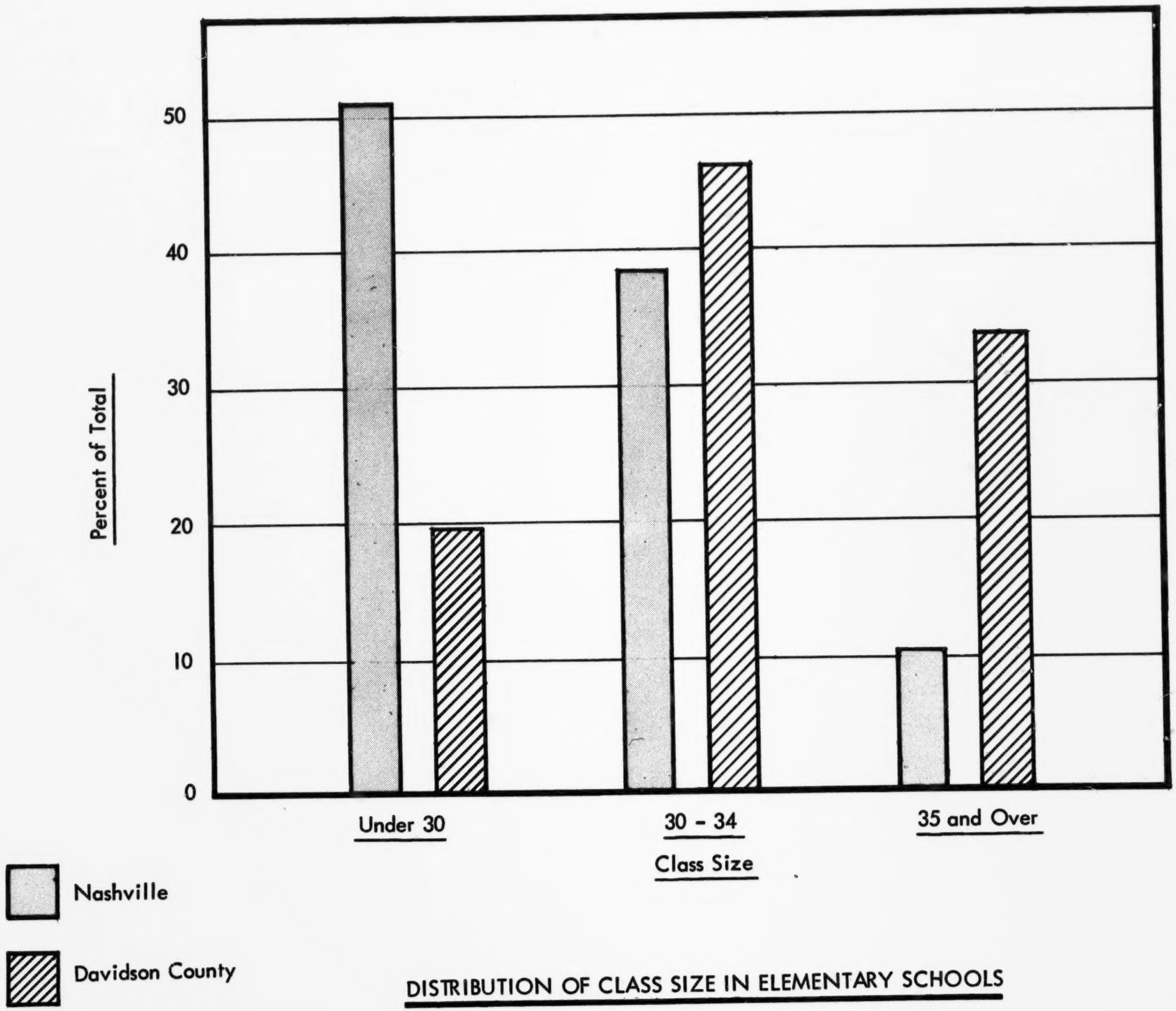
DISTRIBUTION OF CLASS SIZES, GRADES 1-6, IN NASHVILLE AND DAVIDSON COUNTY, FALL 1962

Enrollment	Nashville		Davidson County		Total	
	Number	Percent	Number	Percent	Number	Percent
45 - 49	3	0.5	3	0.3	6	0.4
40 - 44	2	0.3	40	4.2	42	2.7
35 - 39	57	9.7	286	29.9	343	22.2
30 - 34	223	38.1	442	46.2	665	43.1
25 - 29	255	43.6	149	15.6	404	26.2
20 - 24	43	7.4	22	2.3	65	4.2
15 - 19	2	0.3	5	0.5	7	0.5
14 or less	-	0.0	10	1.0	10	0.6
Total	585	100.0	957	100.0	1,542	100.0

TABLE 12

MEDIAN CLASS SIZES IN NASHVILLE AND DAVIDSON COUNTY ELEMENTARY CLASSES, FALL 1962

Grade	Nashville		Davidson County	
	Number of classes	Median	Number of classes	Median
1	120	28.3	181	32.3
2	106	28.3	167	32.4
3	94	30.5	159	33.3
4	88	31.0	159	32.8
5	92	30.6	150	33.2
6	85	28.4	141	33.4
All grades	585	29.4	957	32.8



DISTRIBUTION OF CLASS SIZE IN ELEMENTARY SCHOOLS learning situations and not in others. Learning is an individual thing, in that no two pupils arrive at a given stage of development at the same time. A routine of assigning such different learners the same lesson at the same time means overshooting the mark for some and falling far short of the mark for others. Understanding individual needs of pupils and administering almost as many different learning situations as there are pupils in a class set a limit to class size where mass methods do not.

The Class as a Unit and Organization for Instruction. In view of the teacher shortage there has been some experimentation with methods of handling large classes. Both schools and colleges have used public address systems and closed-circuit television to deliver lectures and to present demonstrations to very large classes or several classes at one time. An experiment at Hagerstown, Maryland undertook to explore the use of closed-circuit television for an entire county school system. For individual pupil diagnosis and remedial teaching, the sound speaker or the video screen is too impersonal and too automatic to account for individual differences.

Many school systems since encouragement of the National Defense Education Act have resources for visual aids, projectors, motion pictures, models, mock-ups, ETV and the like to supplement the textbook and other resources within the classroom. There is every reason to believe that devices for teaching large groups should be freely exploited in situations where classes are large and may be justified in view of curricular objectives.

Various plans in current vogue for providing good education with large classes, such as "team teaching" and "ungraded schools," recognize the necessity of compensating teacher-time activities. Large class instruction to be effective requires more preparation; it must be supplemented by small-group instruction, guidance, etc. These plans, therefore, call for a reorganization of instruction, a rearrangement in pupil grouping -- not a reduction in number of pupils per professional staff member.

Another educational development of the current century has supported a limit to class size. It is the recognition of the importance of other persons in the learning situation. Many desirable learning situations are group or team situations where children work cooperatively on a project. Also, many of the individual achievement situations in the school involve the relation of one pupil to another. Pupils perceive their reciting in terms of how other children are perceiving it, as well as how the teacher reacts to it. Our traditional marking and grading system is competitive, so that children measure their success with how others are doing.

In short, it is reasoned with considerable validity that a teacher is really not concerned with only the single mass communication channel of the one-sided, lecture-demonstration approach, or even just the X teacher-pupil communication channels of the recitation-individual-pupil-study-with-teacher-help approach, but with many human interactions of pupil-to-pupil as well as teacher-to-pupil and teacher-to-group.

If the channels of human relationship of the teacher were to increase only in proportion as X (size of class) increased, then a class of 30 would represent only 20 percent more responsibility for the teacher than a class of 25. He would have, indeed, only 20 percent more report cards to make out, 20 percent more grades to determine, 20 percent more individual pupils to understand, etc. But he would have considerably more possible combinations of pupils to take into account. The groupings of pupils and the human relation channels which must be understood by a teacher increase far out of proportion to the increase in number of pupils. The way this works may be demonstrated by the computations in Table 13 and the accompanying chart.

The Complexity of Evaluating Class Size Effects. Unfortunately the research literature is indecisive in many respects, largely because of the complexity of evaluating effects of class size. For example, a study comparing achievement in long division in large third-grade classes and small third-grade classes in California might not have a bearing on teaching long division in a different arithmetic program with different objectives in Nashville. The outcomes of such an experiment would have no known bearing on how large third-grade classes should be in California or anywhere else for teaching other aspects of arithmetic or other subjects. Certainly it would not apply to other things expected of third-grade children or subjects taught at other grade levels.

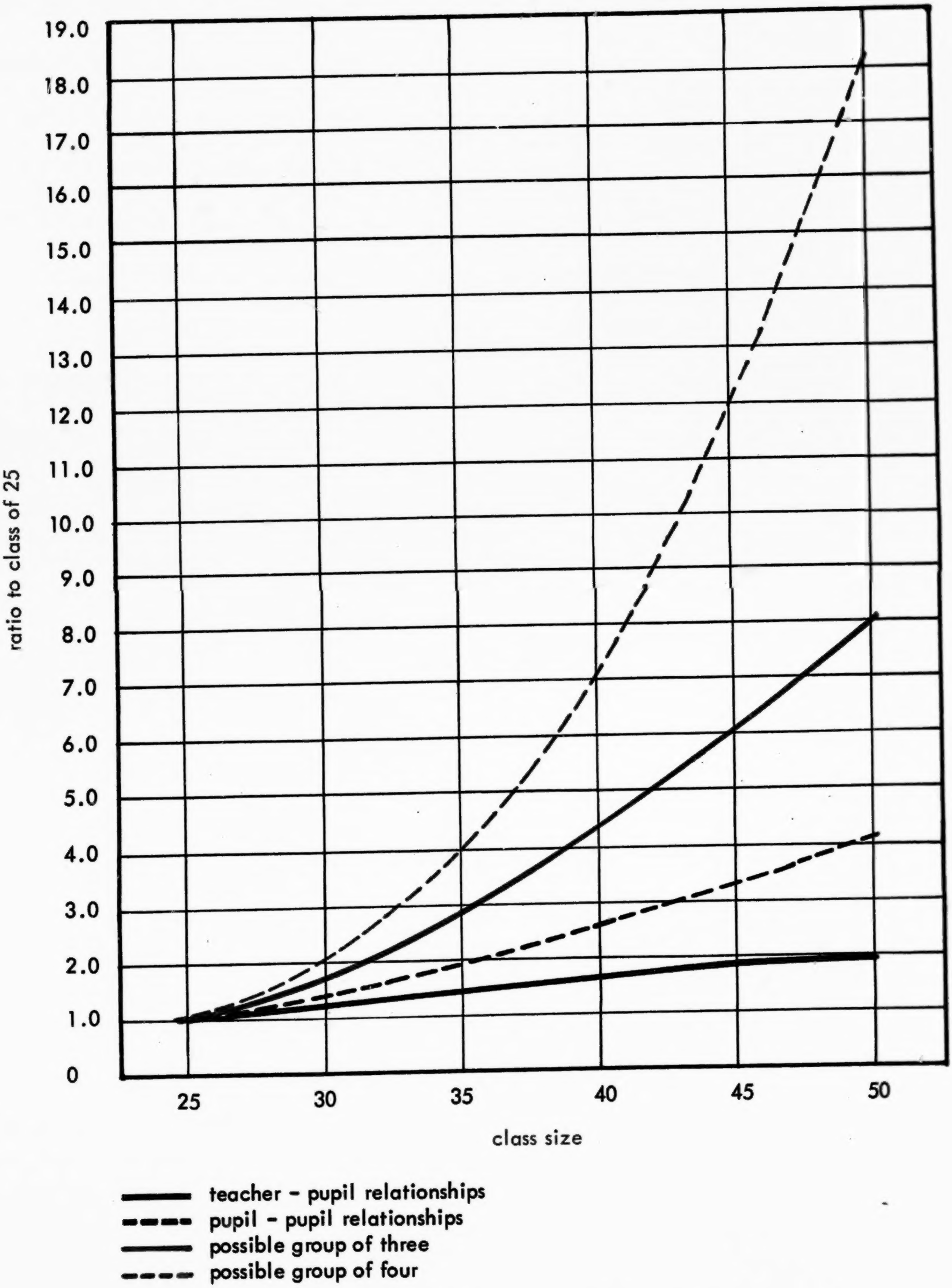
Clearly the class size decision must take many things into account. Some of these have been considered in experiments:

1. The achievement of pupils as measured by standard tests (which usually determine only how much was remembered).
2. Progress of pupils in understanding ideas and ability to think as well as to learn facts.
3. Differences in the attitude of pupils.
4. The extent to which the teacher possesses an understanding of the pupils in the class.
5. The differences in attention and enthusiasm of pupils in their work.
6. Problems of discipline.

TABLE 13

NUMBER OF HUMAN INTERACTIONS IN CLASSES OF VARIOUS SIZE EXPRESSED AS RATIOS TO VALUES FOR CLASS OF 25

Number of pupils in class	Teacher-pupil relationships		Pupil-pupil relationships		Groups of three		Groups of four	
	Number	Ratio	Number	Ratio	Possible number	Ratio	Possible number	Ratio
25	25	1.00	300	1.00	2,300	1.00	12,650	1.00
30	30	1.20	435	1.45	4,060	1.77	27,405	2.17
35	35	1.40	595	1.98	6,545	2.85	52.347	4.14
40	40	1.60	780	2.60	9,880	4.30	91,390	7.22
45	45	1.80	990	3.30	14,190	6.17	148,995	11.78
50	50	2.00	1,225	4.08	18,600	8.09	230,300	18.21



GROWTH OF VOLUME OF HUMAN INTERACTIONS WITH INCREASES IN CLASS SIZE

7. Development of self-reliance.

8. Development of proper work habits.

9. Degree of individual pupil participation (e.g., in small classes pupils should have more chance to recite and ask questions).

The above items suggest the gamut of yardsticks which need to be considered in deciding whether a large or a small class will do. In experimental work it is necessary to control certain factors such as:

1. Differences in objectives of teaching.

2. Availability of teachers to handle classes of a given size.

3. The amount and kind of building space.

4. The variety of courses and problems of scheduling in high schools. (Some small classes are inevitable.)

5. The characteristics of pupils. (Some pupils might do some things better in small classes or vice versa.)

Factors least commonly considered in research studies are:

1. Effect of class size on degree to which teacher can individualize instruction to needs of pupils.

2. Pupil development in human relationships as well as achievement in academic subjects.

3. Extent to which a variety of activities may be provided.

Some Conclusions

The following conclusions seem to be applicable to the Nashville-Davidson County situation:

1. There is no research basis for claiming that large classes themselves will result in a reduction in subject-matter attainment.

2. Similarly, there is little evidence of a relationship of size of class to such matters as student attention, discipline, self-reliance, attitudes and work habits.

3. Educational quality is likely to result more from characteristics of the curriculum, the program of instruction, skills of teachers and utilization of personnel and facilities in support of the teacher.

4. Considerable question can be raised as to the desirability of one-fourth of classes in the area in elementary schools with 35 or more pupils under one teacher.

5. A tenable average level to be maintained is 30. This assumes team teaching, flexible scheduling, varied grouping and teacher assistance in handling the many classes over this number in maintaining this average.

6. Without well-planned reorganization of instruction a maximum class size of 30 is a tenable standard in self-contained elementary classrooms with a single teacher.

7. To study this and similar problems requires a specially trained staff of research personnel working with specialists in curriculum and teaching. Such a staff is recommended elsewhere in this report. Funds to help support research on such problems are available from various sources. It can be money well spent, resulting in possible ways of better use of staff time and more effective instruction.

The Question of Kindergartens

Need for Kindergartens. A consideration of the need for kindergartens is important with reference to the children to be served, the changing population of certain school areas, the quality of the instructional program and the financial implications of the number of teachers and classrooms required.

Kindergartens, on a pilot basis, have been maintained in five schools in Nashville during the school term 1962-1963, each school center having two groups of kindergarten children. Summer kindergartens, of eight weeks duration, are also maintained. During the summer of 1962 one kindergarten was operated in each elementary school in Nashville and approximately one-half of the children who enrolled later as first graders attended. In the County, 400 children out of 6,000 first graders enrolled in the fall of 1962 participated in the program. During the summer of 1963, there will be 43 teachers in 30 schools.

The summer kindergarten program does make use of teachers and rooms when not in use, and this is a commendable feature of the program. Some teachers, however, are not trained for this work and tend to do a "watered-down" first grade program rather than a rich kindergarten program. Equipment needed for kindergarten children is not always available in first grade classrooms.

Results of the Metropolitan Reading Readiness test, administered in the fall of 1962 to entering first graders in Nashville, indicated that 52 percent of the children were in the two lowest categories as contrasted with 35 percent for the national distribution. This percentage seems to suggest a skewed curve with a disproportionately large number in the lower groups. The scores for Davidson County indicated a more normal distribution. Results of the Metropolitan Achievement tests, administered in the spring, indicate that more than 50 percent of the children were above the average as judged by national norms. Obviously, much had been accomplished. It seems probable, however, that considerable time was spent with pre-first-grade activities in order to help these children develop to the point at which reading could be undertaken. While the first-grade teachers are to be commended for the work they are doing in reading instruction, a question might well be raised regarding two facets of the situation, namely: What might have been accomplished had the children been "more ready" as measured by the test, and what undesirable pressures on children have been necessary to achieve such results?

It is also important to examine the number of first grade failures. The total for 1960-1961 is summarized:

Grade	Nashville		Davidson County		Total
	Negro	White	Negro	White	
1	265	279	63	517	1,124

From these figures it is interesting to note that, assuming a class size of 30 pupils, this loss to 1,124 pupils is equivalent to the loss of time of at least 37 first grade teachers. This is costly not only in money but in terms of human resources when the shortage of teachers is considered. It is important also to consider the effect of failure on the child so early in his school career. In addition, most authorities agree that the kindergarten has positive values in regard to the child's personality development.

Values of Kindergartens. Much has been written regarding the value of kindergartens. Studies on the subject invariably show advantages in first-grade achievement and reduction in number of failures, non-promotion and retardation.

The following conclusions seem to be applicable to the Nashville-Davidson County situation:

1. Both systems are to be commended on the start which has been made in providing kindergarten experiences for the five-year-olds.

2. Kindergarten education is a thoroughly justified part of a public school program. It should be included for all children in the new Metropolitan System. However, how soon and how rapidly the kindergarten program can be expanded must depend upon available funds.

   Although no large-scale kindergarten development is recommended in the immediate future, in making long-range building plans, the situation indicates the need for expanded kindergarten facilities during the school term, adequate for the entire five-year old population.

3. The advantages of kindergarten experiences need to be publicized both to parents and the public.

4. Summer kindergartens utilize both teachers and classroom space which are not available in all schools during the regular term. As an interim measure, the number should be expanded in order to accommodate a larger percentage of the pupil population. Teachers who are employed and who have not had specialized training in kindergarten education should be expected to take college work in this field. Additional equipment, appropriate for a well-equipped kindergarten, should be provided. In-service education and supervision are needed.

Policy Considerations

Promotion Policy. An examination of the number of failures indicates considerable variation between the two systems. Almost twice as many failures were reported in the white schools of Davidson County at first grade level as in Nashville. The number of failures reported for both Negro and white schools in the City are approximately the same. In both systems, throughout the elementary grades, the largest number of nonpromotions seems to be concentrated in the first grades.

While retention is often practiced in order to raise standards of achievement, research findings indicate that this procedure is questionable and does not tend to accomplish this purpose. Retention may also be recommended because of the lack of continuity between grade levels and the unwillingness to accept and work with a child at his level of achievement.

The following recommendations are made:

1. A study of retentions should be made in the schools to determine the causes of failures and to plan appropriate procedures for

reducing them.

2. Attention should be given to reorganization of the first grade program to provide meaningful experiences in keeping with the child's level of maturity and development. Where excessive retention occurs at other grade levels, appropriate action should be taken to eliminate contributing factors.

3. Consideration should be given to including kindergarten programs as part of the public school system.

4. A uniform promotion policy based upon a recognition of individual differences in instruction and evaluation and of the environmental factors which affect achievement should be developed and practiced.

5. Consideration should be given to development of some plan for continuous progress through the elementary school.

Records and Reporting to Parents. The title of one of the Davidson County publications, "Communicating With Parents," implies a two-way-process between the schools and the parents. This process involves a sharing of information in order that parents may have a better understanding of a good education and what the schools are trying to do for their child; and that the teacher and the parents may have a better understanding of what children are like.

Both systems are to be commended for accepting and implementing this philosophy through the development of guides for parents of kindergarten and first-grade children; use of parent-teacher conferences; participation in the Parent-Teacher Organization; participation of parents in school activities; and the cooperative planning, by parents, teachers, and supervisors, for the report cards now in use. All of these efforts should be continued.

Present day educational philosophy and practice stress the importance of providing a curriculum in keeping with the ability, growth and development of the children involved. The teacher must, at all times, know a great deal about and understand the motivations of the children she teaches. This implies, then, the need for consultation with parents; tests; interpretation and use of test data; and psychological services.

It is recommended that attention be given to the following:

1. Increasing the number of parent-teacher conferences held with each parent during the year. At least one for each reporting period is desirable.

2. Encouraging teachers to make visits to the homes of pupils.

3. Keeping and using more accurate information about children as the basis for checking the report cards. The decision as to whether the child is "doing his best" is often left to teacher judgment and may not be supported by reliable evidence of the child's ability.

4. Increasing the staff equipped to render psychological services. Teachers and parents need the help of psychologists in order to understand and evaluate some children. The services now available are not adequate to meet the needs of so large a system. Two psychologists are available in the Nashville system and two in the Davidson County schools. When referrals are made by the principal and there is not staff time for psychologists and teachers to work with parents, the full value of such services is not realized.

General Recommendations

In the merging of the two school districts, it is recommended that consideration be given to the following:

1. As provided elsewhere in this report, establish staff under an Associate Superintendent, Instruction, to work regularly in support of classroom instruction; and under an Associate Superintendent, Professional Services, a separate staff not primarily responsible for day-by-day operation of the school program, but assigned to research, curriculum development, development of instructional materials and similar work in designing new and improved materials and methods. Systems of relationships will need to be worked out so that experimental and developmental work will feed back into classroom teaching through coordination at the Associate Superintendent level.

2. Establish a Curriculum Advisory Council consisting of representatives from among teachers, specialists, administrators and the lay public to work closely with the recommended Associate Superintendent, Professional Services, whose duties and responsibilities consist of development of curriculum, methods and materials as distinct from the functions of the Associate Superintendent, Instruction, whose responsibility is putting such developments into use and operating the instructional program. The organization structure is discussed fully in a later chapter.

3. Insofar as possible, utilize curriculum guides of the Tennessee State Department of Education or some other reputable group or agency. Such guides may be used to establish the framework for the system-wide curriculum, under supervision of the Curriculum Advisory Council which has been described. In areas where guides are not available, the Metropolitan School System should develop its own. This situation may be especially true with respect to social studies materials related to the study of Nashville and Davidson County and to ETV guides. The system, however, should be somewhat relieved of the tremendous burden for production of materials which it now carries. The development of resource units for use throughout the system can be discontinued. With additional consultative help, teachers may develop their own units which can be more appropriate for the local school.

4. Continue the practice of using general elementary supervisors to give over-all direction to the elementary school program, to evaluate the curriculum in order to maintain balance among the various areas and in order to determine the appropriateness of it in terms of child needs and development. Because of the size of the system, it is desirable to assign a general elementary supervisor to each one of the three Administrative Districts as recommended elsewhere in this report.

5. It is also recommended that "Helping Teachers" be assigned to work under the direction of each general elementary supervisor. Such teachers should be selected from among classroom teachers and work in classrooms, upon request of principals, to assist teachers in the instructional program. Some may be designated for the primary grades and some for the intermediate grades. The ratio of one to 50 teachers is highly desirable. In the beginning, however, one to 100 may be necessary.

6. There should be continued use of specialists in the various subject areas. Consultants now carrying several responsibilities should be relieved and be free to devote full time to one area. There could well be one specialist each in the following areas: science, mathematics, language arts, music, art, social studies, health and physical education. They would be accountable to the Director of the Division of Supervisory Services; and under the coordination of the Associate Superintendent, Instruction and as requested by Assistant Superintendents, work in the three Administrative Districts as needed. (See sections of this report on Administrative Organization.)

7. Adequate staff should be assigned appropriate Administrative Divisions to provide supervisory, consultative and other special services to insure continued improvement in and maintenance of quality standards of curriculum and teaching on all grade levels, kindergarten through secondary school. Such activities as the following should be contemplated:

   a. Teamwork of people in audio-visual and library services with supervisors, consultants and subject area specialists in reviewing, locating, recommending and producing materials needed for curriculum development.

   b. Development of materials and methods for use of principals and supervisors in evaluating curriculum practices and plans.

   c. Programs of orientation for principals and teachers such as workshops to study new curriculum guides and materials so that they may become familiar with instructional resources; study the implications of the principles of human growth and development for classroom activities and management; explore ways of determining the needs of a community, a class, and a child; and make needed adaptations in the curriculum.

   d. Conduct grade-level meetings to study needs and tasks of children at the age level involved; to study and make recommendations regarding textbooks and audio-visual materials; and to recommend goals to be achieved.

   e. Research projects with faculty groups, as well as with individual teachers, in analysis and use of test results, community study, experimentation with curriculum innovations, and in use and evaluation of new guides, books and materials. Precise and scientific methods are recommended so as to insure dependable knowledge on what works best, under which conditions and why in all research of this type.

   f. Curriculum committees to study and make recommendations to the Curriculum Advisory Council, to work on topics designated by the Council, and to develop needed curriculum guides and materials.

VII

THE SECONDARY SCHOOL PROGRAM

Generalizations about the secondary schools of Nashville and of Davidson County with respect to their offerings and services are difficult and dangerously misleading. The history of the development of these two school systems accounts for a wide variety of practices and organizational forms.

The Secondary School Product

One method of looking at secondary education is to examine the proportion of youth served and what becomes of those who graduate. An excellent device for evaluating and redirecting a secondary program is a sample follow-up study of graduates to see what they do after graduation and how what they had in school matches their needs. Such studies can and should be instituted in the new Metro system, if recommendations made later in this report are followed in adequately staffing research and development personnel to help keep the new school system on course.

No such follow-up study was available at the time of this survey. However, estimates of dropouts and a canvass of all seniors in the spring of 1963 concerning plans after graduation have considerable bearing on the adequacy of educational services to youth in the two systems combined.

1. Of every 10 pupils in the sixth grade, only six stay through the twelfth grade. Without complicated follow-up studies, it is not possible to determine exactly how many students leave high school and why. An approximation is nevertheless possible by following enrollments by classes through successive grades. For instance, the following shows the attrition to the senior class which graduated in 1963 from the time students in this class were seventh-grade pupils in 1957-58:

Year	Grade	Enrollment	Percent of 7th grade
1957-58	7	5,017	100.0
1958-59	8	4,824	96.2
1959-60	9	4,352	86.7
1960-61	10	3,956	78.9
1961-62	11	3,514	70.0
1962-63	12	3,083	61.4

Some of the above attrition may be due to transfers of some children to private schools and some to out-migration of families with secondary-school-age children. In the main, however, this is the result of dropouts, youth who do not complete high school. In numbers it amounts to about 2,000 of the June 1963 graduating class who were lost along the way.

2. With projected increases in enrollments, by 1972-73 the number of dropouts for each graduating class will exceed 3,000 unless the holding power of the schools is increased.

3. High school dropout rates vary considerably among neighborhoods of the Metro system, approaching 50 percent in both white and non-white areas in the City and holding to less than 30 percent in County white areas.

4. Of graduates not planning to go to school beyond high school, the vast majority intend to look for a job or have no plans for the year after graduation. Of an estimated 5,000 or more graduates by 1972-73, only about 430 will have a job and some 250 will expect to enter military service if conditions continue as they now are. Over 1,100 will neither be planning to attend college, nor have definite plans for employment or other use of time at graduation.

5. Of graduates expected to go to school after high school, large numbers will not seek a four-year degree college program and the majority will not have assured means of financing their post-high school education. If responses in 1973 are similar to those in 1963 to questionnaires to seniors, 3,200 will expect to study after high school graduation and of these --

    860 would not intend to go through a full four-year program;

    1,300 would anticipate attending school or college at or near home;

    2,300 would not be able to depend upon full costs of such study from family support exclusively.

    There will thus be many hundreds of youth expecting to continue education after high school for which there might not be locally appropriate post-high school opportunities in the community.

The implications of this are discussed in the following chapter of this report.

Some of the expected annual potential crop of 3,000 dropouts can be induced to stay through high school. This will require continued development of secondary programs, and extension of programs of pupil personnel services as discussed elsewhere in this report. Of the remainder of the dropouts, some will find their way into the labor force and subsequently will need retraining for employment as adults. The implication is a type of post-high school, full-time, evening and part-time education needed to serve literally thousands of youth in the community. An additional implication is the desirability of continuing summer school, both for able students who may accelerate their secondary education by this method and the student who needs this opportunity to make up work and stay in school with his class group.

The recommendations in this and subsequent chapters assume that the obligation of the new Metro School System will be to work toward serving the entire annual crop of youth in the community -- the 3,200 or so who will go to school beyond high school and the remaining 5,000 who will not plan further education, including the 3,000 or more who will not even have finished the 12th grade. Since the foregoing analysis is based upon a single year, it is to be noted that the full impact is much greater as these educational gaps are allowed to build up year by year.

Differences to be Reconciled or Eliminated

There are marked differences in secondary school programs in Metro. First, the County junior-senior high schools generally have a core program for grades seven and eight, while the City schools do not. In some cases the core program includes some mathematics and some science while other core programs do not.

Secondly, there is a wide variety of types of schools housing secondary students, such as:

grades 10 - 12: two in the City, none in the County
grades 7 - 12: four in the City, eleven in the County
grades 9 - 12: one in the City, three in the County
grades 7 - 9: five in the City, none in the County
grades 7 - 10: none in the City, two in the County
grades 7 - 11: none in the City, one in the County
grades 1 - 9: two in the City, none in the County
grades 1 - 10: one in the City, none in the County
grades 1 - 12: one in the City, one in the County

Thirdly, the number of students going on to college varies from 10 percent to some 90 percent.

Fourthly, the number of students taking business subjects varies from 6.3 percent to 43.9 percent.

Finally, classes are much too large in some schools due to lack of teachers and facilities and too small in others with too few students to fill advanced and specialized classes.

It is evident, however, that certain conclusions can be reached regarding the two systems:

1. In the County schools very little, if any, emphasis is given to art as indicated by the low percentage of enrollment taking this subject.

2. Music is also very much less elected in the County than in the City.

3. Enrollment in homemaking in secondary schools varies from 18.9 percent of the total enrollment to 25.0 percent in the City, whereas this varies from 11.8 percent to 27.3 percent in the County. This shows up in the analysis of the actual needs in the County, where there are 10 high schools with more space than needed. In the City, on the other hand, there are only five high schools with more space than needed.

4. In industrial arts there are six high schools in the City and seven high schools in the County with more space than is needed for present enrollment in this area.

5. In the County there are 15 high schools with not enough science rooms for the enrollments in this subject, while in the City there are 11.

6. In foreign language the percentage taking these subjects varies from 1.5 percent to 28.9 percent in the City, while in the County it varies from 6.0 percent to 71.5 percent. A larger percentage planning on going to college would tend to produce a larger percentage of enrollment in this field.

7. There is little vocational work being offered in the County. This will be treated in another section of the report.

Subject-Matter Areas in the Secondary Schools

Examination of the reports of 2,700 high school seniors regarding their post-high school plans; a review of some 20 titles concerning curriculum in the Davidson County schools, some 30 such titles from the Nashville City schools, and some five titles from the State Department of Education; observation in a sample of junior and senior high school classrooms; discussions with building principals, teachers, and central office personnel, including directors, coordinators, supervisors and consultants; all of these activities lead to the following generalized conclusions concerning both the City and County systems:

1. In the general fields of instruction in the junior and senior high schools, there is a commendable alertness to modern appropriate content for most children and youth. Language arts, physical and life sciences, mathematics and modern language instruction are apparently developed on a sound basis with sensitivity to the need of continuing review of content. There are no major "cults" or extreme trends apparent -- on the contrary, there is the not unusual difficulty of system-wide up-grading of all work, but this difficulty is recognized and being dealt with. It is anticipated that this will continue as a constant operation within the structure of the new school system. (See the following section on Supervision and Curriculum Development.)

2. There is a problem in the important and challenging field of the social studies. This is not a problem unique to these schools. Rather, the study of the social sciences and their interrelationships has not been satisfactorily resolved on a national scale, and thoughtful teachers and leading scholars in these fields are dissatisfied with the general results to date. Attempts to "bridge some gaps in the curriculum" have emerged under such curriculum materials titles as "Social Living." Excellent resource guides on the History of the United States and on the Tennessee Heritage have recently been prepared in the Nashville City system. Just as there is a nation-wide search for more meaningful and purposeful programs in the social studies, so the local system must conduct parallel inquiry. Alertness to national trends and requirements is necessary. Classroom teachers must be released for meetings with supervisors, consultants and other resource persons, and for attendance at the state and national conferences on this vitally important phase of the curriculum.

3. A surprising variety of stress is placed on such subjects as the fine arts and other elective areas in the separate schools. This variety may be attributable in part to the pressure for completion

of programs leading to college admission and in part to the frequent assumption that such subjects are of relatively little importance. To some degree this is attributable to simple lack of facilities. Enrollments are so remarkably varied, however, that it is worthwhile considering the relative importance of some knowledge of and appreciation of major elements within the several fine arts, for instance, and the desirability of building a stronger understanding of the importance of these elements of our cultural heritage throughout our school staffs and general citizenry. Neither art, nor homemaking, nor choral music, nor drama can be termed "frill" by any well-educated and thoughtful person. On the contrary, these are important aspects of a sound education in the latter quarter of the twentieth century, and each school system has a real responsibility for awakening those who would deny them to the import of such subjects in the lives of modern Americans.

4. The range of elective subjects, their quality and their relevance to modern needs in modern life, are all symptoms of the comprehensive character of a good secondary school. By and large, the senior high schools of the City and the County have a good list of elective offerings for the more academically motivated and able student. It is suggested that certain system-wide inventories of these offerings could be fruitful as a means of identifying needs for further elective offerings not now available. True, the size of the student body and staff must necessarily constitute a major determinant of the range of electives which should be considered prudent. The possibility of offering several advanced courses in traditional subject fields, plus adoption of some electives which up to the present have arbitrarily been considered of "college level," needs further exploration in all of the senior high schools. Further exploratory experiences of a less formal type may be well justified in the larger junior high schools. Earth sciences, various forms of (substantial) consumer mathematics, creative writing, modern American literature, economic theory and more intensive and realistic approaches to geography are examples of this type of elective.

5. In common with most school systems in modern America, the schools which will constitute the Metropolitan system are seriously deficient in providing meaningful and appealing programs for the young people who are of less-than-average academic motivation and promise. Despite our record of constant improvement of offerings for the young people who are of above-average academic potential, the large number of youth for whom these

programs are something to be tolerated or to escape from is the greatest of challenges to those responsible for the operation of our schools. At the present time some Davidson County and Nashville City schools are providing commendable programs for many such youth; yet as noted previously, only about 60 percent of pupils in these schools entering the 7th grade survive to graduate. Furthermore, the frank statements of expectation by present seniors clearly reveal that more than a third of those who have survived into the senior year of high school have no plans for further formal education, that of those who plan to go on to further formal study, 27 percent plan to do so for less than four years, and that of those who do not plan further formal education, over half expect to "look for a job." The wisdom of strengthening present guidance programs, curriculum offerings and other opportunities for this significant number of Metropolitan youth is all too clear. This is not an easy task nor a minor responsibility.

The large body of worthy and able young people for whom the world of scholarship as such has little appeal is a major segment of this nation's potential for greatness. Far more important than learning prescribed segments of classical scholarly discourse is the importance of developing in the minds and hearts of these young people the skills of honest objectivity in dealing with all problems, the desire to continue to learn socially desirable things throughout life, and the commitment to making meaningful contributions to the welfare of our people and of all people wherever they may live or work or study. This report does not offer a neat curriculum guide to the accomplishment of this difficult goal; rather, it reminds those responsible for the schools of the Metropolitan system of the unfulfilled task of providing meaningful and worthy educational opportunity of an appropriate quality for all Nashville and Davidson County youth.

Organization for Supervision and Curriculum Development

Determination of the optimum organization for accomplishing the important business of developing the best possible program of offerings calls for careful consideration of the resources available, the legal and situational demands and the estimates of future trends; all in the light of clear statements of the very purposes to be served.

Certain clear similarities have existed between the organization to accomplish these purposes within the Nashville City schools and those of Davidson County. Clearly, differences have existed as well. The final decisions, however, as to the organization of the Metro district must lead to an organization which will be educationally and economically sound.

At one end of the organizational structure must be the governing Board, as legally constituted within the framework of state law. At the other end will be found the children and youth to be served. It is appropriate to examine the means whereby the intervening elements will be identified, related and assigned. Certain issues must be resolved. On the basis of examination of the situation as it existed in May 1963, these issues may be classified under headings which follow.

Centralization versus Decentralization. What is to be taught and what is learned is largely -- in fact, almost exclusively -- a function of the individual teacher in the classroom. Here, working with students, the ultimate success or failure of the educational program hinges upon the teacher's skill, knowledge, and acceptance of the task to be done. Skill as a teacher, knowledge of subject matter and of the nature of young people, and acceptance of the assignment are all characteristics which may vary in quality with the passing of time. The extreme decentralization of a school system would allow each teacher to remain in an autonomous and insulated setting, unaffected by the influence of administrators, supervisors, or other teachers except through the students themselves. No self-respecting teacher would welcome or tolerate such an extreme. The opposite extreme places the teacher in the role of an automaton, dutifully transmitting to students the items as ordered from on high, in a manner and with a method also externally ordained. Innocent of mature ideas or enthusiasm, such a role can be filled by the least talented, unthinking clerk, or in fact a carefully programmed computer. No self-respecting person would claim to be a teacher under this extreme.

Moreover, as is noted time and again in this report, there are vast cultural differences among neighborhoods within the Metro system pointing clearly to needed adaptation to variations in student populations. Furthermore, to keep schools properly related to the community and to compensate for the remoteness and impersonality inherent in large school systems, there must be an optimum balance between the uniformity, order and control of centralization and the responsiveness to community needs afforded by localized responsibility.

So a balance of responsibility between the superintendent and his staff, the building principal and his staff, and the classroom teachers as individuals and as members of a faculty and of grade-level groups, subject-matter departments and other groupings must be achieved. This will be discussed more fully in a later chapter.

Coordination, Creativity and Conformity. A school system, large or small, requires coordinative activities, the responsibility for which must be central to the system and to the work to be accomplished. This is as true of the development of constantly improving curricula as it is of efficient purchase of supplies or budget development. Yet the sources of ideas about the curriculum will not be found in any one location; rather, as is well known to experienced administrators, throughout faculties will be found people with ideas of major significance to the growth and improvement of all aspects of the school program. Such ideas may be of such value that they must not be lost or limited in use.

Thus, a means for the channeling of opinion, ideas, and newer knowledge into the life stream of the whole school system must be guaranteed. Further, provision for pilot enterprises applying the findings of new research to the local school system must be an integral part of the organization for program development. The world of scholarship is far from static; it is changing at an exponential rate. The Metro district must take full advantage of every source of relevant new knowledge and this must extend into the day-by-day activities of each teacher in each classroom.

An occupational hazard exists within every teaching situation; it is well known to experienced observers. There is a temptation for all teachers to lose the enthusiasm with which they entered their first assignment, to fail to find the personal satisfactions which should be present in every attractive profession, and to become settled in a routine and mechanical type of daily and yearly activity which leads to the enjoyment of what has become known as a comfortable rut.

The challenge to every teacher, administrator and other person active in the life of the school system is clear. There must be meaningful and attractive opportunity to experience warm and sincere recognition for the effective use of worthy talents. There must be an opportunity to extend the scope of these talents, to explore fresh ideas, to dream and to design. This is a problem faced in every known school building and only the rarest is able to avoid frequent losses to the tempting threat of this hazard.

Substitute Loyalties. Inherent in the formation of the Metropolitan School System is a conflict in established and reasonable loyalties to persons, to agencies, to institutions and to customs. A local, long-established and honored high school inevitably has enjoyed a worthy degree of autonomy. A committee of supervisors has been responsible for the planning for in-service education of a segment of the staff. A leader has enjoyed the deserved admiration, respect and affection of a large number of persons within and without the school system. Such siutations are natural and desirable.

Yet with the substitution of a Metropolitan School System, some major loyalties are threatened, some customs jeopardized, some personal popularity subject to erosion. These threats to the established order can lead to chaos or to significant improvement; certainly the status quo cannot persist. It is here that some of the best thinking must be applied to take full advantage of the opportunities available, to exploit the unique and new relationships which can and must lead to better education for more boys and girls. There must be a willing and sincere sacrifice of some prestige and power to the end that all involved may benefit from the new relationships.

It is unnecessary to stress the remarkable accomplishments which have already been realized in this respect. A visitor to the two school systems, as of May 1963, is deeply impressed with the forward-looking and confident attitude of practically all responsible members of the central office staffs as well as building principals, classroom teachers and other workers. There is clearly a reservoir of good will and an honest desire to assist in making the new organization as effective in serving the youth and children of the City and County as can possibly be realized.

It is therefore strongly recommended that early and frequent conferences be arranged between supervisors and other central office staff members in discussion of the resources, responsibilities and authority realized by each individual and group, committee or commission to the end that they may develop sound and meaningful proposals for the best accomplishment of the increased tasks which will be faced in the large and growing new school system. There must, in turn, be frequent conferences among the building principals and other unit administrative officers to develop comparable plans which are in harmony with not only the best interests of the individual school and its students, but even more important, in harmony with the ultimate purposes of a unified educational program for the whole Metropolitan School System. Steps to redirection of attitudes, as well as unification of purposes and loyalties,should be undertaken during the school year 1963-64.

Instructional Materials

The selection, procurement and replacement of such materials as textbooks, audio-visual materials and library books have become increasingly difficult and expensive activities. In both the County and City school systems there is a clear and commendable effort to provide adequate materials and services. There are major and supplementary assignments of responsibilities for such provision. Yet there are limitations on funds available, and such will always be the case.

A minor revolution concerning teaching materials has taken place in the past two decades and the situation remains dynamic, to say the least. The difficulty with which these schools must contend is that investment in a set of adopted texts may be a major item of expense, and although these texts may be obsolete by the time they are placed in use in the classroom, the investment cannot be overlooked or written off. Best use must be made of the materials available within the reasonable limitations of funds available, the time necessary to obtain texts, and the skill on the part of the teacher in their use.

It is strongly urged that the Metropolitan School System draw from the valuable experience of the central office staffs and the present school faculties in encouraging the use of multiple textbook adoptions, of paper-bound texts and supplementary materials, and of the increasing supply of good teaching materials found in fugitive form in a host of places. Further study must be made of the methods whereby adoptions of major textbooks shall be accomplished in the new district; there are, at present, several people well-qualified to conduct such studies, and to extend the findings of these studies to the day-by-day work of teachers in the various schools.

Generally speaking, the library and other instructional materials services of the present school systems are good. As is true in every aspect of the modern program of education, they can be made better. One-fifth of the teachers who responded to the questionnaire on staff relations reported that the library services and availability of textbooks and teaching supplies were unsatisfactory. This fraction can and must be reduced. Through careful planning, the Metropolitan School System, sensing those factors which promote a feeling of satisfaction, will reduce the number of dissatisfied teachers appreciably, if skill, good will and mature judgment are the needed ingredients.

Of course, new media and devices for instructional activities are appearing in impressive number and variety. A strong and active system-wide study of the effectiveness of these newer media is urged. Leadership for this study should rest with full-time specialists in the field of instructional media, but teachers, supervisors, principals, research specialists, psychologists and others should be included. The world of technology is knocking on the schoolhouse door; not all of its products should necessarily be welcomed with open arms. Thoughtful evaluation of every proposed medium and device will separate the good from the gadget.

Records and Reporting to Parents

There is no known school system which enjoys complete confidence in and satisfaction with its use of student personnel records or in the plan, policies and practices of reporting to parents and students. The survey finds no serious deficiencies in the Nashville and Davidson County schools other than those which seem to be a common deterrent to more effective educational programs in most of the better school systems. Yet there remain some recommendations which are certainly worthy of consideration.

There is ample reason to suspect that in the busy demands placed on most teachers, close attention to and use of the data which are available about the potential, the problems, the accomplishments and the failures of each individual student are almost impossible. However, the data which are available -- in personnel folders, in class roll books, in guidance offices and in permanent records -- should be used or not collected and maintained. A two-pronged effort is needed:

1. It is recommended that responsible personnel, probably starting with the administrative staffs of each separate school and including those responsible for the guidance program, be assigned

the task of carefully reviewing the methods of collecting data, of maintaining recorded data and of destroying old data when no longer needed. In each school, too, there should be a staff-wide study of the use of pertinent data information and the transmission of information and records to teachers, between schools and from offices to other agencies. There is no denying the reluctance of able teachers to seek out student records if they are poorly organized and awkwardly located in the hidden recesses of busy offices.

2. As part of the in-service program of professional upgrading of all the professional staff, time should be devoted to an organized study of modern methods of measuring and recording relevant information about each student which make possible a more efficient program of instruction appropriate to that student's best interest. This point is stressed due to the too-common superficial acceptance of rough reference to "John's I.Q. is 110," or "Mary is a grade below her right level in reading," as specific determinants of the student's future career or an explanation for success or failure in achievement. Such concepts as achievement grade norms, percentiles and measurements of central tendency are often forgotten by conscientious teachers and assumptions about students based upon lack of understanding of such terms may weaken the whole program of guidance of the student, as well as detract markedly from the effectiveness of a given teacher's relationship with students. It is not proposed that each teacher become an expert in statistics nor in psychometry; rather it is stressed that long-established concepts of understanding human qualities need to be reviewed and newer concepts, practices and instruments be made known to all professional workers for whom their use has significance.

With the advent of data processing equipment, there is a serious possibility that certain human relationships may be overlooked. Although the addressing of envelopes and the recording of the total list of grades for a given student may be rapidly and efficiently done by machine, the parent and the student are entitled to some evidence of personal interest and recognition on the part of at least one teacher with whom the student works. Again, there is no simple formula for the development of a "better" system of reporting to parents. It is suggested that when "machined" report cards are widely used, a more frequent informal note from a teacher or counselor to the home of each youth including occasional, sincere messages of commendation, rather than exclusively of blame, will seem most appropriate.

The High School Diploma

The significance of a high school diploma, the purposes for distinction between types of diplomas (if more than one is to be used) and the requirements for graduation from high school are all matters which should be related to system-wide policies. Certain practices which have gained recognition within one school and are stoutly defended by the staff of that school may seem wrong and indefensible when viewed as part of the practice and policies of a larger school system.

For this reason, it is wise to plan for a system-wide review of divergent practices; a thoughtful reconsideration of the real significance of a high school diploma in the light of the trend toward making the high school an upward extension of the common school; and the development of certain minimal statements of policy to be approved by the Board of Education and to govern the requirements for, and symbolism associated with, graduation from high schools within this school system. Diplomas should be within the reach of any student; their award should be made in this spirit rather than one of a highly selective program in which only the more academically gifted may survive.

Special recognition for remarkable accomplishment may appear in various forms. It may consist of a seal on the diploma, a separate document or other symbol, or in the publication of a list of honored students. It will lend dignity and meaning to the diploma itself, however, if its physical appearance as well as the textual material contained therein are simple, modest, and neat. The important message which it should convey is that the holder has satisfactorily completed the best educational program which the staff of this school system has been able to provide for him. It cannot guarantee high intelligence nor specific accomplishment. Employers and college officials must be urged to seek more detailed information about the student from specific informed members of the school staff.

VIII

VOCATIONAL - TECHNICAL, ADULT EVENING SCHOOL AND COMMUNITY COLLEGE EDUCATION

As the previous chapter pointed out, there are large numbers of youth whose education is not completed, either because they leave school before graduation from high school, or because of continued education and training needed after high school. Some of the observations in this chapter pose the question of just how seriously this unmet need burdens the Nashville - Davidson County economy and ways in which education and training programs may be designed to salvage some of the human waste indicated. Economic well-being is one of the important goals of public education. It is of interest to ponder the question of how much would need to be invested in this salvage operation to yield manifold returns in increased productivity, earning power, purchasing power, taxpaying ability and improved living of inhabitants of Metro.

A Brief Resume of the Employment Situation in the United States, Nashville and Davidson County

Observations, comments and recommendations contained in this report are made after a review of local and national data pertinent to the labor market outlook for youth now in the Nashville - Davidson schools. Some of these data are included in order to place the report in its proper perspective.

The United States has about five percent to six percent of its labor force now unemployed. During the years between 1960-1970, 26 million more young workers will enter the labor force. This number of new entrants into the labor force is a 50 percent increase over any previous decade. In contrast to the increasingly large numbers of people available for employment are the alarming reports that thousands of jobs are disappearing each week due to technological changes.

An analysis of national occupational trends reveals that the most significant over-all change in the nation's occupational structure has been the shift toward white-collar jobs. "Professional, technical, managerial, office and sales workers outnumbered craftsmen, operatives and laborers for the first time in 1956. By 1970 they will number one quarter more."[1] The number of professional and technical workers needed in 1970 is estimated to be about 40 percent greater than the number employed in 1960.

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[1] U.S. Department of Labor, Bureau of Labor Statistics. Employment and

This growth will not be confined to traditional professions, however, as "opportunities for technicians are increasing in numbers even faster than those for engineers and scientists. These and an ever increasing demand for medical and other health specialists will result in a rate of growth about twice that of the labor force as a whole."[2]

It has been estimated that by 1970 the employment of clerks and salespersons will increase 26 percent, service workers up 25 percent, skilled workers up 23 percent, semiskilled workers up 18 percent. Opportunities for unskilled workers will be about the same but the need for farmers will decrease 16 percent.

The importance of education and training becomes obvious if one compares the number of persons seeking jobs to the kinds of occupational opportunities that are now available and those that will be increasingly plentiful during the rest of this decade. The market for brawn is rapidly disappearing. These same statistics also show clearly the need for a re-evaluation of the kinds of vocational preparation available to youth and adults in the community.

A review of employment characteristics in Nashville, compiled by the Metropolitan Planning Commission, revealed that a similar trend began here between 1950-1960. These statistics indicate that training for professional, technical, clerical, sales, and service occupations must be given every consideration in any plans for vocational education in the Nashville area.

An Analysis of Previous Attempts to Solve the Problem of Providing Vocational Education for High School Students

Various organizational plans have been tried throughout the United States and each has been found wanting in one way or another. The separate trade school concept came into being after the turn of the century, followed by the technical high school and more recently the comprehensive high school. Each has had built-in shortcomings, as evidenced by the fact that none of these philosophical approaches has solved problems such as school dropouts, automatic promotions (with resulting dissatisfaction on the part of both students and society) and inadequate

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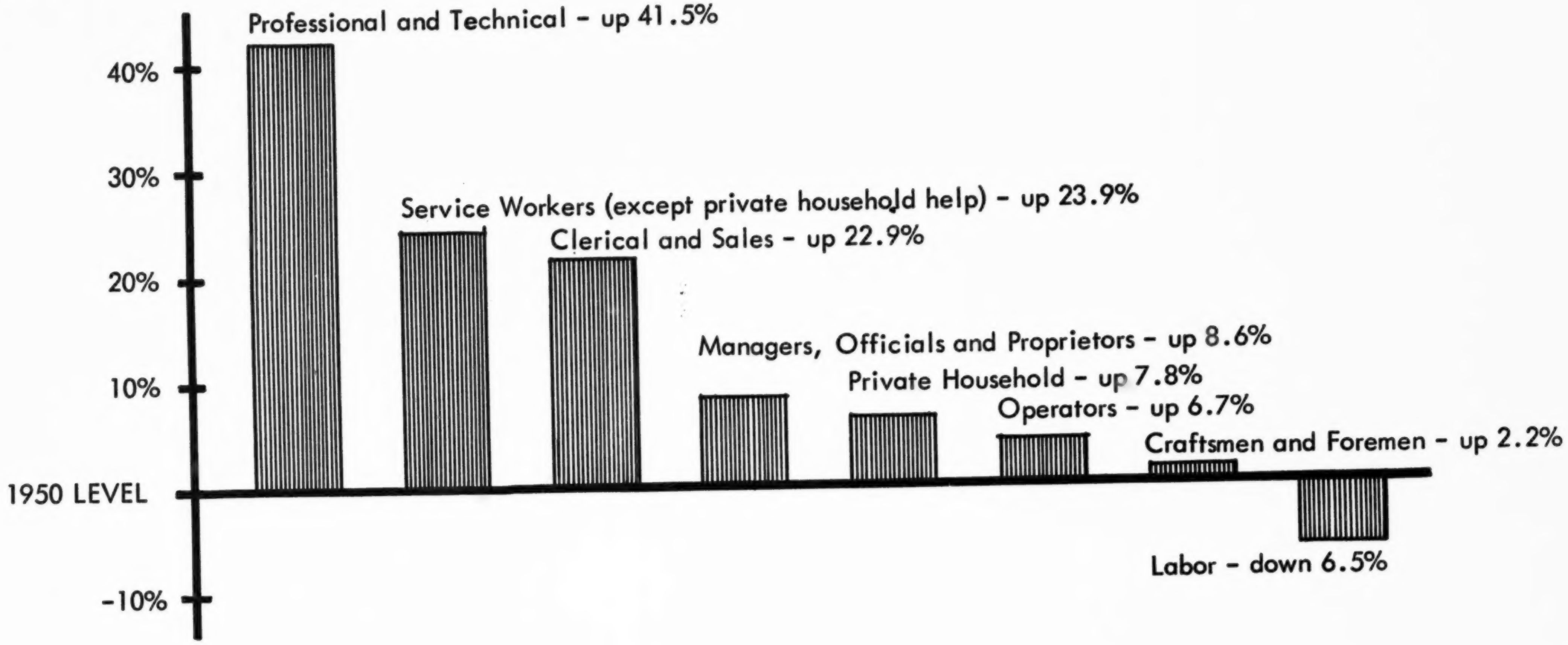
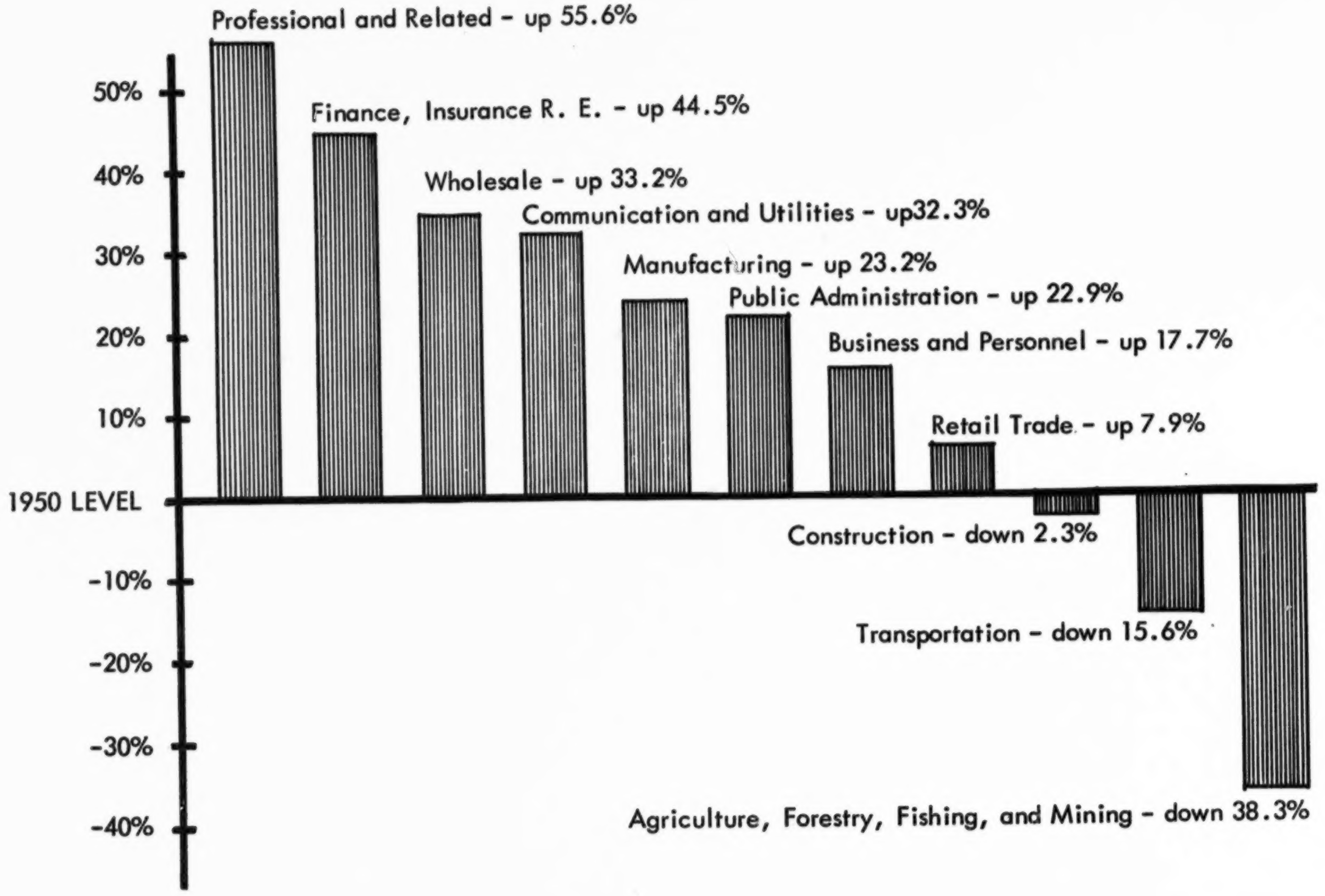
Unemployment Among Young Workers. 1961. p. 21.

[2] *Ibid*., p. 21



PERCENTAGE CHANGE BY OCCUPATION
NASHVILLE AREA, 1950 - 1960



PERCENTAGE CHANGE BY EMPLOYMENT CLASSIFICATION
NASHVILLE AREA, 1950 - 1960

vocational preparation for jobs in a changing society. The goal of all curriculum changes should be the maximum satisfaction of all students and society. Although this objective will never be achieved, all successful aspects of previous attempts should be incorporated into any new plans for the Metro School System as a part of a continuous effort to make progress toward this goal.

The Trade or Technical High School. The concept of separation of academic from trade or technical high schools was conceived so that students vocationally committed to an occupation requiring the traditional college education beyond the high school could pursue the high school college preparatory program without the handicap of having other students in these classes with different vocational objectives. Theoretically this provided a more homogeneous grouping of students, with those having blue-collar vocational objectives attending a separate school for an instructional program more in accord with their needs.

Failure of this system stems from at least two sociological factors. Parents want only the best for their children and have the idea that if their offspring attend a separate trade or technical high school they are getting less than the best. The possibility that their child might not be considered as good as a neighbor's child if he went to this separate school has created pressures to attend the academic high school even though the boy or girl lacks interest and motivation for the curriculum. High school youth themselves, conscious of peer group opinions as well as parental pressures, have rebelled against the separate school concept as it made them appear different in the eyes of other students. The gradual outcome has been that students who attended the so-called vocational school were, in the eyes of peer groups and adult society, individuals unable to compete academically or socially.

The trade or technical high school experienced limited success for still another reason. The program offerings were a splintered patchwork of courses which, except in only a few schools, failed to give a rich realistic and comprehensive experience for more than a small fraction of the student body. Offerings were too few and not based upon occupational opportunities in a changing technological society, but upon employment conditions as they were in the past. Curricula in agriculture, sheet metal or woodworking were still offered even when job opportunities in these fields were rapidly decreasing.

The nature and scope of many other occupations also changed but the educational program did not keep pace. In the past, for example, the electrical industry consisted of lighting and power transmission and a curriculum in electricity could be found in almost all vocational high schools. Most schools still teach this type of an electricity course with some added radio and television repair work. Occupational opportunities in the electrical field have broadened, however, and now include the traditional wiring, power transmission and radio-television repair plus such areas as communication electronics, industrial electronics, and electronic computer maintenance. Educational requirements have changed considerably, but most existing educational institutions have failed to reflect these changes in their programs.

The Comprehensive High School. The comprehensive high school came into being because of the sociological handicaps of the separate trade or technical high school. Philosophically its goal was to provide opportunities for each student to develop to his potential -- sort of an everything to everybody. Actually these new institutions are unable to meet the need for many and varied curricula because of limitations of space, students and money; they suffer from the problem of limited program offerings even more than the separate trade or technical high school. Unless such schools were excessively large in total enrollment, costs became excessive to provide facilities for the multifarious course offerings required, often in small class groupings. If funds were not available, they became little more than conventional, academic, college preparatory schools.

Cooperative Education. Cooperative education, another type of vocational education, was developed and has met with a great deal of success in many areas. The philosophical reasoning behind this type of education was a realization that all realistic vocational experiences cannot be provided in a school situation and that the community itself can be utilized as a classroom. Techniques developed in these programs allow students an opportunity to obtain experience and develop occupational skills in actual work situations while they continue their general education classes in the high school. A criticism of this program in Nashville and elsewhere has been the limited numbers of students served. Another criticism has been the barriers which restrict participation in the program to those students who have been able to compete successfully in the regular high school subjects and have developed the necessary saleable skills needed for entry into select, relatively high-level occupations.

An Analysis of Previous Attempts to Provide Shop Experiences for Junior High School Students

Considerable progress has been made throughout the country in the development of industrial arts courses for youth at this level. The general education concept of exploration and experimentation, rather than development of skills and knowledge for narrow specific occupational goals, is the basis for these courses. Successful programs have been developed that capitalize on the interests and abilities of this age group and provide experiences in line with their capabilities. For example, the natural curiosity of how to take something apart, examine its working parts and then reassemble and operate it is satisfied by working with equipment simple enough to be understood and in accord with interest patterns of this age.

In these programs students work with bicycles, motorbikes, model airplane engines, outboard motors, power lawn mowers, etc., rather than automobile engines and chassis. This smaller equipment allows each boy to have something of his own to work on and operate when it is reassembled. These programs have also capitalized upon youths' natural desire to make something while directing their talents toward creating things of good design in keeping with their interest and abilities, rather than just developing skills necessary for an occupation.

Many schools with programs like these have their industrial and fine arts teachers working together so that the principles of good design correlate with good craftsmanship and proper use of tools and materials.

An Appropriate Junior High School Curriculum

Industrial arts courses of one hour each day, five days per week, for at least one semester in each of three shop areas, should be an integral part of the general education of all male students. Opportunities should be made available for students to elect subsequent courses in the shop of their greatest interest. This provision would enable individuals, including those with limited academic ability and motivation, to obtain additional time in the exploration of shop processes and materials.

The physical arrangement of the shop area would include a general materials shop, electrical shop, and a power mechanics shop. Equipment and scope of each shop and course of study should be as broad and varied as money, space and instructor talents will permit. Objectives of these curricula should not be vocational preparation, but exploratory experiences into many fields of work as well as hobby and leisure time activities. To illustrate, these three shop areas might include the following:

General Materials Shop: Exploratory experiences working with wrought iron, art metal, plastics, pipe and tubing, wood, ceramics, etc.;

Electrical Shop: Exploratory experience working with electrical appliances, simple circuits, radios, T.V. sets, etc.;

Power Mechanics Shop: Exploratory experiences working with bicycles, model airplane engines, outboard motors, power motors and other mechanical gadgets.

Recommendations for a Vocational Education Program

The overriding objective of the following recommendations is to get students into educational programs in accord with their vocational commitments.

A single simple solution or organizational pattern will not accomplish this goal. These recommendations, therefore, include a combination of old and new programs and techniques.

Comprehensive High School. This organizational pattern will provide the college preparatory program for the large number of students committed to traditional professional occupations requiring four or more years of college. Some schools may also wish to offer occupationally oriented curricula for employment after high school graduation. These, however, should be limited to a curriculum in which the number of students committed to an occupation is large, and the cost, type of equipment and space requirements can be justified. For example, a large comprehensive high school might include a business curriculum. Such a school might have enough girls vocationally committed to office occupations to justify such a curriculum. Equipment needed in this program could also be used by students in other curricula for enrichment purposes and thus help to justify the large expenditure of money. Other curricula might also be justified on this basis, but it is important to note that not all comprehensive high schools would offer the same programs, as the needs of students will vary in different sections of the City and County.

An industrial arts program, more advanced than in the junior high school, should be included in the secondary school. This curriculum, however, should have broad general objectives rather than narrow vocational goals. Students not yet committed to an occupation should enroll in these exploratory courses seeking an area of work in accord with their aptitudes and interests. Other students might take these courses, not for vocational reasons but for enrichment of their program of studies. For example, students vocationally committed to engineering, dentistry, medicine, etc. could profit by these experiences for future hobby or leisure time activities, or for the development of manipulative skills and the acquisition of knowledge valuable in their own future vocations.

The comprehensive high school should also include an expanded cooperative education program to meet the vocational commitments of another segment of the student body. Students would be allowed to enroll in this program after they have demonstrated a level of proficiency in the productive skills needed for entry into the occupation and when training stations are available which provide the necessary well-rounded experiences. If properly nurtured and administered, the cooperative education program will continue to meet the needs of many students.

These programs will not, however, meet the needs of all students in the secondary schools. Many will not be committed to the occupations that require traditional college preparatory classes nor those areas served by the cooperative education program. They do not possess the aptitude, ability or motivation to profit by these educational experiences. The cooperative education concept of the community as a classroom, however, can be continued so as to meet the needs of still another group of students.

The less academically talented youngster whose interests and aptitudes lie in the expanding service occupations could also profit from opportunities to learn on the job in a realistic situation. This could be called a work experience program. Although similar in format to the cooperative education program, students in this program should not be required to possess skills before being placed in a training station, nor should the school demand that an employer provide the same breadth of experiences in that station. Instead the criteria should be a vocational commitment to the occupation and ability commensurate with the needs of that occupation.

With the great increase in the number and breadth of opportunities in service jobs it would be impossible for a school to provide shops and laboratories for the diversity of learning situations needed to develop saleable skills in such a variety of occupations. Individuals could be placed in training stations in the community as bus boys, waitresses, bell hops, short order cooks, car washers, service station attendants, janitors, shoe repair men, etc., and instilled with the desire to be superior workmen in those occupations. These students would continue in school part-time and participate in classes designed to make them aware of their responsibilities as citizens and to develop abilities in the art of living with other people. The key to success in this type of program is a recognition on the part of society and the schools that no matter what the job, someone must be prepared to fill it.

An adoption of this philosophy by the new school system should go far in eliminating the many dropouts to which reference has been made previously. Increased interest in the dropout problem indicates that society now recognizes that it is better for schools to provide realistic training for workers at this level in order to keep them in school. By remaining in school these individuals will have an opportunity to obtain as much general education as they can absorb. To do otherwise will cause these students to drop out, or create situations in other vocational classes to the detriment of those who are committed to an occupation and desire all the preparation they can get prior to entering into it.

Community College

This type of an institution is primarily post-high school and for adults. It has five functions, namely:

1. To provide the first two years of baccalaureate degree work, and to provide remedial high school classes for the late bloomer or those whose objectives changed after high school and are now desirous of a second chance.

2. Occupationally oriented courses designed to prepare people

for entry into jobs in technical and skilled occupations, either as pre-employment training for full-time students, or for individuals already employed who wish to change into another occupation.

3. Community service programs for (a) the business and industrial community whose employees wish to update or upgrade their educational background to keep current with rapid technological advances, (b) apprentices indentured in the skilled trades who need related instruction to accompany skill development experiences received on the job, and (c) management and supervisory personnel whose knowledge, skills and understandings in the field of management must be broadened concurrent with the increased competitiveness of modern business.

4. Continuing education to meet adult needs for classes in general education, literacy, high school credit, leisure and hobby activity, citizenship for the foreign, etc.

5. Counseling and guidance services for the adults in the community.

Although this type of school is normally thought to be only for adults and of a post-high school nature, this definition should be altered. Some high school age youth vocationally committed to an occupation (and, as a result, vitally interested in educational experiences related to that occupation) can compete successfully with older adults. This is now an accepted fact as many high school students, vocationally committed to one of the professions, have successfully completed subject matter courses formerly considered to be on the collegiate level. Maturity and ability are not highly correlated with chronological age. Success often depends, however, upon a commitment to an occupational goal and the desire to succeed in it. High school students age 16 or older, once they have made a commitment to an occupation, should be encouraged to attend classes designed to prepare for entry into that occupation.

This means that an institution organized like a community college, designed to meet the diverse occupational needs of adults, can also serve the needs of these select, vocationally committed high school students. These students would still retain identity with their high school by taking the required general education classes with their high school friends and go to the community college for their occupationally oriented classes.

The advantages of an institution organized along these lines are:

1. The sociological problems inherent in the separate trade or vocational school are eliminated, as the high school students

selected to go would represent many levels of abilities and prepare for "status" occupations as well as those considered "lower" in the occupational hierarchy.

2. The high school students would make up only a minority of each class, thus providing them the psychological stimulus of acting and achieving like the adult members of the class.

3. Only those students vocationally committed to a particular occupation and able to profit from the instruction would be allowed to enroll, thus making for a more interested homogeneous group.

4. By combining adults and high school students in pre-employment training programs the resulting size of the student body would enable the institution economically to provide a wide diversity of curricular offerings.

5. Buildings and equipment could be utilized both day and night and thus provide for more economy of operation. Classrooms, laboratories and shops could be used for upgrading and updating the skills of employed workers as well as pre-employment training. Adult high school credit classes for a diploma, remedial classes needed prior to enrolling in an occupationally oriented or liberal arts curriculum, literacy classes for the disadvantaged, and leisure time and hobby classes for non-credit could all be offered under this organizational pattern.

6. All adult education would thus be under one administrative structure, thus preventing unnecessary and expensive duplication of effort. This institution would not undertake to duplicate services already being furnished by other educational and community institutions whose offerings now meet community needs. Instead it would permit a consolidation of the local effort to work cooperatively with these other educational institutions and organizations.

Summary of Recommendations

A. A strong three-shop industrial arts program as a part of general education for all junior high schools.

B. A comprehensive high school organizational pattern with curricular offerings in each school depending upon student need and economy of operation. Opportunities in these high schools to include:

1. College preparatory program.

2. Industrial arts program oriented to general education and not vocational preparation.

3. Cooperative education program for those students who have developed the necessary entry skills and are vocationally committed to the occupations where these skills can be used.

4. Work experience programs for those students whose interests, aptitudes and motivations are directed to an expanding number of service occupations so diverse as to make the offering of realistic vocational experiences impossible within the school.

5. Vocational education programs limited to those areas where the number of students committed to a specific vocation is great enough to justify the high cost of equipment and operation.

6. Pre-employment training in the community college for those students vocationally committed to one of the occupationally-oriented curricula offered in that institution.

C. A comprehensive community college created, dedicated and administered to meet the adult education needs of the entire community -- as well as the needs of select, vocationally committed high school students.

IX

PUPIL PERSONNEL SERVICES

Pupil personnel services is a term for a great number of supporting services in school systems which have as their focus helping children achieve the greatest benefit for themselves from the schools provided for them, through specially trained persons who are able to diagnose or analyze background factors that influence children's behavior. Taking the time a regular classroom teacher cannot give from his or her duties of teaching and using professional techniques acquired in their training, these specialists study children's learning ability, scholastic achievement, emotional stability, social adaptability, home and family conditions, health, developing vocational interests, etc., in order to help plan and conduct activities designed to correct or enhance conditions in the children that affect their ability to learn in school.

Action may take the form of either special services performed directly or, more often, advice and help to teachers and school administrators in accomplishing desired changes. Action may be taken individually or through group programs.

Pupil personnel services include: (1) psychological services of a clinical sort, (2) school social work services, (3) attendance services, (4) guidance services (secondary), (5) school health services, (6) group testing services, (7) remedial services, (8) adjustment teacher services (elementary). In some systems, the conduct of special education for handicapped children is also included, but in the school districts being merged in Metro the more typical practice of allocating this function to those in charge of instructional services is recommended.

General Observations

Before discussing proposals for a program of pupil personnel services for Metro, three general observations seem appropriate.

First, pupil personnel services find their justification in the degree to which they further the primary purpose of the schools of helping children learn. Consequently, proposals for these services need to be judged in that light.

Second, the need for particular types and amounts of services should be analyzed and determined without regard to the agency that will perform them. Those proposed here are so proposed becouse they contribute to the effectiveness of schools in helping children learn. But child needs for health services, psychological services, welfare services, etc., are community responsibilities and should be viewed as such regardless of how they are accomplished. Once these needs have been assessed, they should be held before the public mind until they are properly fulfilled. It will be a waste of funds and time devoted to surveying these needs if consideration of them is allowed to degenerate into a debate as to whether the services needed are properly school functions.

Third, there was wide agreement in schools visited that present pupil personnel services furnished are of high quality, but limited and therefore often delayed by lack of personnel. It was also widely agreed that the individual staff members performing the services were people of good will, ready and willing to cooperate with one another in helping the schools, but limited in achieving the desired level of integrated functioning by lack of a coordinating leadership at the top. To get fullest returns from the person employed as director of this service, he should be recruited from those with strong psychological training (doctoral level) and understanding of school problems. It may be true that, for administrative purposes, top direction of this function might be given to a person with a background of success in educational administration and a sympathetic understanding of the values of such services acquired from school experience. A background of psychological training, however, is to be given priority.

Psychological Services

At present, the central staffs of the two merging systems each contain two persons rendering yeoman service in both individual and group testing. They are uniformly well regarded by their respective superintendents and by the school principals they serve. However, their services are spread so thin that they cannot keep up with the full demand of the schools for advice on individual and group problems, including the testing of individual children for the evaluations basic to the crucial decisions regarding placement and continuation in classes for educable mentally retarded.

It is recommended that they be freed of responsibility for the group testing program and serve as members of the staff of a Psychological Services Department, headed by a person with doctoral training in school psychology. The total staff might best include four others trained at the master's or educational specialist's level in school psychology, and two others with doctoral training in school psychology.

It is assumed that this staff would need close liaison and coordination to permit specialization within the staff in dealing with children with particular characteristics. It would be the responsibility of this staff (1) to diagnose and make recommendations concerning children referred for learning difficulties, poor learning ability, emotional instability and behavior problems and (2) to promote understanding of the causes and treatment of such difficulties in the schools through in-service programs of case conferences, general instruction, etc.

The doctorally trained persons would take primary responsibility for evaluating emotionally disturbed children and those with severe learning disability, but would also serve as consultants to those less fully trained on all cases that reached them. One or two of those trained at lower levels might be assigned to work in and from the offices of each of the three District Assistant Superintendents responsible for the decentralized administrative centers. These persons would be administratively responsible to their respective district superintendents and serve their districts, but would be professionally under the direction of the Head of the Psychological Services Department in the central office and with ready access to his central staff for consultation, including provision for regular staff meetings.

Wherever stationed, each staff member should have adequate facilities -- use of a private, soundproof office of 60 square feet or more, plus desk, low table and files. Mileage allowances for travel to schools should be regularly budgeted.

It is recommended that at least two of the members of the Psychological Services Department staff be Negroes, in order to take advantage of their ability to obtain rapport in cases involving Negro children.

Regular consultant service should be arranged with a psychiatrist actively concerned with children. He should be expected (1) to provide didactic and consultant service to the staff on their work with cases and (2) to facilitate referrals to other psychiatrists. Local psychiatrists should be consulted to see whether they would prefer to have this consultant disqualify himself from handling cases on referral from the staff in order to place himself in a freer working relation with other psychiatrists to whom cases would be referred. Much would depend on how adequately the total referral load could be handled by public and agency clinical services in the community.

School Social Work Services

The school social work services of the Nashville system are provided by a staff of eight -- six white and two Negro. Separate attendance services are provided by another staff of eight. These services were formerly coordinated by a supervisor who resigned only a year or so ago. They continue an effective liaison with each other, the principle that governs differentiation of functions being that the attendance workers take responsibility for enforcement of school attendance, including court action when necessary, while the school social workers are thereby freed to deal with children and their families without authoritarian complications. These services are very well received by the schools, praise being freely given, but always with the added note that more would be useful. In particular, the person at the head of each of these services carries full case loads that leave him only borrowed time to use for coordination.

The Davidson County schools, tending as they do to have a substantial suburban element, have felt less pressure to employ school social workers. The County system includes attendance work as just one of several services in a two-man Department of Zoning, Welfare, Attendance and Statistical Reports. There are no social workers as such. Recognizing that socio-economically favored districts have less need for school social work, nevertheless there is some need even in such districts and the whole County territory is by no means equally favored.

It is recommended that Metro build upon the present school social work services a Department of Social Work Services with a head and a staff of 11 white and five Negro social workers. The staff would be decentralized, assigned to the district offices as needed, the need being greatest in underprivileged areas. As with the staff of the Department of Psychological Services, the school social workers would be administratively responsible to their district superintendent, but professionally under the direction of the Head of the Department of Social Work Services in the central office.

The basic criterion of employment should be a master's degree in social work. The duties should be primarily home visitation and case reports for referral to the Department of Psychological Services wherever the initial referral of the case from the school involves more than exploration of reasons for non-attendance. Participation in case conferences in the schools, designed to help teachers understand home factors in school disability, would be part of this work. Initial referrals for non-attendance only might well still go directly to attendance workers, but be referred by them to the Department of Social Work Services whenever economic welfare is a factor. School social workers would analyze financial needs for referral to appropriate welfare agencies, public or private. Non-attendance cases would be referred by attendance workers to the joint attention of the Department of Psychological Services and the Department of Social Work Services when the initial home visit indicated factors in the home, other than economic, calculated to affect school achievement.

Negro staff members in the numbers suggested seem essential because of the problem of obtaining entree and rapport in home visiting.

The Head of the Department of Social Work Services should hold the M.S.W. degree and be otherwise qualified by experience in school social work and by administrative ability.

Attendance Services

Attendance work in the Nashville schools is accomplished by a staff of eight -- five white and three Negro attendance workers. Schools report that attendance work is handled in good spirit by a staff of competent persons who work under a heavy overload. The person in charge carries as heavy a load as any, as each serves a geographical zone. The man in charge has a bachelor's degree in social work and shows a grasp of the social work viewpoint that lends credence to reports of the fine work of his staff from the schools and from the school social workers.

The limited service of two men in Davidson County was noted in the previous section.

The primary consideration seems largely the same as in the area of school social work services: namely, a need for more.

It is recommended that Metro build upon the framework of attendance services now available in Nashville a Department of Attendance Services with a head and a staff of 11 white and five Negro attendance workers. Administrative decentralization of staff, assigned to districts as needed, but professionally under the direction of the Head of the Department of Attendance Services in the central office is recommended.

Attendance workers may best be taken from school staffs, but may also include police officers with special training in dealing with juvenile problems if they show a proper combination of authoritative and persuasive qualities.

The Head of the Department of Attendance Services should hold the B.S.W. degree and preferably the M.S.W. Beyond this the requirements would be experience in school attendance work and evidence of administrative ability.

As soon as possible, a central Statistical Service Department should be set up, preferably under a specialist in statistical reporting and data processing in a Division of Research and Development, to service all statistical and reporting functions of the new Metro School System. This department would be responsible for processing and maintaining cumulative attendance records. The Department of Attendance Services should not be bogged down with record keeping. Whatever system for processing attendance statistics is finally established, the flow of attendance information should be such that the Head of the Department of Attendance Services receives weekly and monthly reports directly from the schools of children admitted, dismissed or transferred. Each such report should provide as full an explanation as possible of where new admissions previously attended school and where those leaving have gone, including specific mention of the names of schools to which transcripts have been sent. New record cards should be made out in connection with summer round-up and should contain date of birth entered from the birth certificate at time of admission. Such records have value not only as the basis for reports of attendance to State authorities, but as a source of reference in studying the histories of individual children referred for diagnosis, in predicting and following up dropouts, and in awarding work permits at and after the time students reach the age limit of compulsory school attendance. The system of processing attendance records should be such that the Head of the Department of Attendance Services can have the responsibility for maintaining such records on an up-to-the- minute basis because of their ramifying uses within the staff of the Director of Pupil Personnel Services.

Group Testing Services

The two school systems have substantial group testing programs. This work is currently under the direction of school psychologists in both systems. It is recommended that they be relieved of this activity in order to provide more adequate individual testing services and consultation to school faculties on the cases they diagnose.

The group testing program is important, however. It should continue to be the function of the staff associated with the Director of Pupil Personnel Services not only because of the reference use of such data in individual cases diagnosed, but also because of the need for centralized study of such records.

It is recommended that a Head of the Department of Testing and Evaluation Services be appointed with adequate staff to coordinate the system-wide group testing program, with assistance in each school from the counselor (high school) and adjustment teacher (elementary school). Advice on the design of this program should be the responsibility of a system-wide committee of teachers, counselors and principals. This staff should take responsibility for seeing not only that tests are administered and scored properly, but also that maximum use is made of the results by teachers in planning group and individual instruction, by counselors in guiding students in curriculum choices and career planning, and by administrators in analyzing progress in their schools and in reporting to the community. These latter functions need to be performed as "helping" functions, but they require positive promotion in their execution.

The Head of the Department of Testing and Evaluation Services should have a background of training at the level of educational specialist or higher in the field of educational measurement and have rich teaching experience and insight into the instructional program of the school system, as well as ability to communicate ideas and interpretations to others in a constructive spirit.

It is strongly recommended that scheduling of the system-wide group testing program be reviewed with a view to placing achievement testing at the beginning of the school year. At this point the results are fresh information to the teacher about all new pupils. Thus, the information becomes available at a time when its use in the year ahead is promoted, while any hint of use of the results for administrative evaluation of individual teachers is at a minimum. Results become available for immediate use rather than for filing, while subsequent use for individual guidance purposes or for general administrative appraisal and "quality control" can be based on data summarized centrally at the convenience of all concerned.

Data processing equipment should be used to implement this service and especially to accelerate the process so that even the summaries come early in the year. Depending upon the ultimate nature of organization of the new system, this function may need to be allocated to the Division of Research and Development with the Associate Superintendent, Professional Services, responsible for coordination with other services and instruction. (See Chapter XV.)

Guidance Services (Secondary)

Guidance services have been an accepted function in secondary schools the country over for the past decade or more. Their operation has been the object of substantial federal support for the past five years.

The pattern in Nashville is largely a part-time arrangement, each school being allowed to release a teacher for one period of counseling per day for every 100 students. With the varied size of the junior and senior high schools, this means the amount of service varies from one person half-time to as many as five persons part-time giving the equivalent in periods per day of three full-time counselors. The ratio of full-time counselors or equivalent to students is one to 600, which should be compared with the widely recommended one to 250 or 300 found in reports of professional groups and in such general commentaries as Conant's "The American High School Today."

Coordination is provided in Nashville by a separate Coordinator of Guidance Services. In Davidson County coordination is an incidental function of the School Psychologist in the central office.

In view of the growing need for guidance in making curriculum choices and career planning in secondary schools, the need for stemming the tide of early dropouts, and the need for smooth articulation between schools in Metro and between colleges and employment, it is recommended that steps be taken to put in each high school one full-time guidance counselor for every 400 students.

It is further recommended that at least one man and at least one woman be assigned to counseling in each school. To accomplish this, one or both persons may serve part-time until the number of students warrants two full-time persons. The above recommendations are in keeping with current practice in large cities and represent only a step toward the more adequate staffing recommended by Conant and others.

Training requirements for positions as high school guidance counselors should be set so that the minimum is the master's degree in guidance and counseling, with additional work leading to the degree of educational specialist being indicated as desirable. Provisional certification while acquiring training may be necessary, but it is recommended that a system-wide program of identifying and recruiting potential counselors be instituted so that teachers may prepare themselves for this service in advance of appointment, with knowledge that they will be given first consideration for such appointment when openings occur.

It is recommended that a Department of Guidance Services be established in the central office staff, the head of which should be at the level of educational specialist with at least a master's degree in guidance and counseling and be in the process of acquiring advanced training leading to the higher degree at the earliest possible moment. The guidance counselors in the high schools should continue to be administratively responsible to their principals, but be under the professional direction of the Head of the Department of Guidance Services.

There should be two system-wide staff members in guidance services. First, there should be a coordinator of placement services. One high school currently enjoys the benefits of a virtually full-time counselor with responsibility for placement, with excellent results. This service should be made system-wide and be disseminated through the counselors in the respective high schools.

Second, there should be a coordinator of school-college relations whose function would be to coordinate the visits of college representatives with the needs and interests of students in all the high schools. It is most inefficient to have all the negotiating regarding special opportunity for admission and scholarship aid done separately by the counselors in the several high schools.

Remedial Services

As a matter of efficiency, a large school system should have a specialist who stands squarely between the office of Pupil Personnel Services and instructional administrative staff in the matter of corrective or remedial services. Instructional supervisors, specializing in various subject fields, have an important function. There is a need, however, for a specialized competence that goes beyond the skills of corrective instruction to capabilities on a high level for differential diagnosis and treatment. The remedial specialist must be qualified both in psychology and education at a high level. He should hold a doctorate in educational and/or school psychology. He should have a special responsibility for serving as a consultant to the staffs in the administrative structure responsible for coordinating the work of the helping teacher services described in Chapter VI and adjustment teacher services described hereafter.

Adjustment Teacher Services

For the past decade there has been talk of counseling and guidance in the elementary school, but no clearly defined pattern has emerged. Meanwhile, the elementary school curriculum has been stepped up to such a degree that it carries a great part of the instructional load formerly borne by the high school. In what we call the self-contained classroom it has been hardly fair to expect the elementary school teacher to remain self-contained. In most cases, as in the districts comprising Metro, she has carried on without even the free period granted junior and senior high school teachers each day. Nor has she had the assistance or professional advice of a guidance counselor to help her with special problems arising from such factors as differences in homes and neighborhoods.

The most promising model of assistance, with a history dating back to 1936, is the so-called "adjustment teacher service" in the Chicago public schools. Along the lines of that model, it is recommended that an Adjustment Teacher be provided in every elementary school and that a second such teacher be provided if the school has an elementary school enrollment of over 600 children (or 20 regular teachers).

Duties of these Adjustment Teachers should include (1) diagnosis of learning difficulties, (2) remedial teaching of individuals and groups, (3) coordination of the school's group testing, (4) coordination of referrals to the Department of Psychological Services and/or the Department of Social Work Services, (5) consultant service to classroom teachers on learning and behavior problems, (6) consultation and coordination of plans for grouping children for instruction.

There are now several new models of elementary school organization vying for favor as ways of meeting the new situation in the elementary schools, varying from complete departmentalization in one or more grades to ungraded classes to plans that involve only regrouping of pupils in one or more special periods, with many intermediate designs to choose from. It remains for each school to consider carefully the often forgotten variable, individual differences among teachers, and to adapt the pattern of operation to them and the unique needs of the school's population.

This new staff member will not always represent an addition. There are many small elementary and junior high schools in Metro that could be brought under unified administrative direction and simply substitute this function for one of the principals. (There would appear to be no reason why two small schools, especially when they are on contiguous property like Cavert Junior High School and Eakin Elementary School, could not be administered by a single principal, thus freeing a position for this Adjustment Teacher function in the elementary school. The junior high school already enjoys counselor service.)

A warning: The Adjustment Teacher should not be used for substitute work or the purposes of the position will be defeated. The Adjustment Teacher must remain a "pupil personnel associate" on the school staff and administratively responsible to the principal like any other teacher, but professionally under the direction of the head of this service.

A Head or Supervisor of Adjustment Teacher Services should be on the central staff with training at least at the level of educational specialist and be working for the doctorate in educational and/or school psychology. Successful teaching experience and some previous administrative or supervisory experience are desirable. Adjustment Teachers should be successful teachers, trained at least at the master's level in educational and/or school psychology, with special attention to diagnostic and remedial work. As with guidance counselors, a system-wide program of identifying and recruiting potential Adjustment Teachers should be set in motion at once so that classroom teachers may prepare themselves for this service in advance and be assured of priority in placement in such positions.

The nature of this function is so closely related to the Remedial Services function that administratively they may be directed by the same central administrative staff member. This and other Pupil Personnel Services, in any event, must be special services with specialized personnel carefully woven into the operating fabric of the instructional program.

School Health Services

School health services in large metropolitan school districts follow no single pattern. They vary from those completely staffed and operated by the school system (Chicago) to those completely staffed and operated by health departments (Detroit). A compromise that has developed in various metropolitan systems places high school nurses under the jurisdiction of the Board of Education and provides similar service for elementary schools by means of itinerant nurses from a health department.

Surveys indicate that a great majority of school systems in established communities have either sole or joint responsibility for operation of school health services. Moreover, a recent survey of plans of large city systems, regarding consolidation of various pupil personnel services under the direction of a high-level administrative office, shows a substantial majority planning to include school health services under that head.

The local situation presents a sharp contrast between the Nashville program of school-operated health services and the Davidson County practice of depending completely on what was formerly the County Health Department. The city employs nine white and four Negro nurses; the County Health Department employed 32 white and six Negro nurses for its total program. It is quite evident in both the City and the County system that service is more readily available in the school-operated program. (A third more home visits were made by the 13 City school nurses than were made by the 38 County nurses in behalf of children from one to 17 years of age.) This is generally true in other systems and the matter of how such services are to be rendered must be based on weighing a large number of considerations, including adequacy and cost.

The question of adequacy looms largest. Also, it applies to many services rendered children partly or wholly by agencies outside of schools. Agencies, public or private, that serve several different clienteles -- adults as well as children, industrial as well as school groups -- face the task of operating within a total budget and a staff with divided responsibilities and loyalties. Service is provided up to a limit set by the staff, facilities and time available. Long waiting lists are a common phenomenon. As much is done as can be done and choices have to be made. Programs for other groups compete with the schools for staff time, sometimes in blocks that mean that only the most urgent school cases can be seen until "Project X" is completed.

There are considerations on the other side. Schools may become preoccupied with intellectual development to the detriment of a proper health emphasis; demands of the athletic program may be allowed to eat into funds for health and physical education that are meant for the health program, etc. What is required is a decision as to what health services are needed and how much they will cost and then a decision as to what agency or agencies can be depended upon to perform them best. Schools are often given responsibilities such as these because they have an ongoing concern with the children as individuals in their classes and can be depended upon to maintain a continuing interest stemming from this. Other agencies may close a case; the schools seldom do, short of the upper limit of compulsory school age, and often not even then. Without closing the door to other arrangements, our proposals are given below

It is recommended that the School Health Services be put under the direction of a Registered Nurse. This person should be specialized in child health, preferably with experience as a school nurse, with advanced training in nursing education. There should be a staff of 22 white and eight Negro school nurses, all

Registered Nurses. They should serve local districts from the decentralized administrative centers as the demands of the districts dictate. Their duties should include (1) scheduling general physical examinations and vision and hearing tests, (2) assisting physicians in the conduct of physical examinations, (3) home visiting where necessary, (4) assistance in health education, including in-service programs for teachers, (5) referral service to physicians when needed in an emergency and/or when family resources and interest fail to bring corrective action via family physicians.

The nurses should be bound by codes prepared by the Davidson County Medical Society regarding services they should feel qualified to perform directly, services they should perform only under supervision of physicians, and services they should refer to physicians for performance.

Contractual arrangements should be made with physicians for (1) consultation, (2) emergency service, (3) conducting physical examinations, and (4) in-service development in basic and new paramedical techniques.

Health education should be the primary function of the instructional staff under the Associate Superintendent, Instruction, (not the Associate Superintendent, Professional Services) as discussed in Chapter XV. In high schools, teachers of health education should have certification for first-aid training; should teach in rooms adjacent to health clinics to which they would be available on emergency call; and should be scheduled for a period a day in addition to their regular free period for maintenance of records and supplies. They should have immediate access to nursing and medical help through arrangements monitored by the Head of School Health Services.

In every elementary school, at least one teacher should hold certification in first aid, be available for emergency calls and have immediate access to nursing and medical help through arrangements monitored by the Head of School Health Services. A clinic should be maintained in each school, preferably adjacent to the principal's office, with records and supplies kept up by the principal's office personnel in accordance with arrangements made by the school nurse responsible for service to that school and approved by the Head of School Health Services.

Dental health, physical examinations of teachers and school sanitation inspections should be left to arrangements approved by the Davidson County Health Department and the Davidson County Medical Society. School nurses would take responsibility for referral of cases requiring dental treatment to private dentists, or to dental clinics if family finances or interest proved unequal to maintaining dental health through private arrangements.

It must be obvious that this report cannot be expected to spell out all the details of a program of school health services. It is submitted that full details can be worked out by all concerned in keeping with the broad outline indicated here, if the task is approached in the spirit of meeting child needs with proper medical safeguards. A special advisory council on school health services may be desirable.

Pupil Personnel Council

A major function of pupil personnel services is liaison with and referrals to community agencies, public and private, in the areas of mental health, physical health, and welfare. An advisory council to the Director of Pupil Personnel Services should be considered. Its membership should consist equally of school and agency personnel -- all types and levels of administrative and instructional personnel in the schools -- and personnel from all types of agencies, public and private, that are concerned with children and their development.

Footnotes and Implications

As stated at the beginning, pupil personnel services in the schools have their justification in the extent to which they facilitate and support the primary function of schools, instruction. But, as noted in discussion of the requirements of personnel for these services, they have a unique contribution to make to the educational process. Analysis of the functioning of the present-day elementary school is one such contribution, as cited under Adjustment Teacher Services. What to do about elementary school organizational arrangements to meet the implications of individual differences and the increasing demands of the curriculum is a continuing problem to which those rendering pupil personnel services are trained to contribute. In the Metro district a basic grade pattern and plan of organization for instruction needs to be established. Then all can discuss the ungraded primary, the dual progress plan, the Joplin plan, departmentalization, team teaching, the Baltimore plan of stratified grouping and the like, as possible ways of coping with the elementary school's problems.

At the secondary school level, as noted in the previous chapter, there is a clearcut need for curriculum arrangements to permit part-time work and part-time study as a transition from the school to the world of adult life and work. Such considerations grow more naturally out of the experiences of school social workers, high school counselors and school psychologists who deal with the problems of maturing children than out of purely curricular or instructional planning.

The place of televised instruction in the total pattern of instruction is an aspect of curricular planning which will undoubtedly come under study. But new learning patterns -- their advantages and disadvantages and how to relate them to maturing pre-adolescents and adolescents -- are subjects which require careful examination. Persons trained in educational and/or school psychology and coping with adolescent problems have understandings to share and research techniques to use in such investigations.

Pupil personnel service staffs should be freed so far as possible of administrative and disciplinary functions. Discipline should be administered by the regular administrative chain of command, running from school principal to District Superintendent to Associate Superintendent, Instruction. The staff in the pupil personnel administrative component should be used to diagnose and recommend on such cases and thereby reduce the number of cases requiring direct disciplinary action, but disciplinary action, when required, is an administrative function. The functions of school census, zoning and location of new schools should be assigned to a separate administrative component.

X

SPECIAL EDUCATION SERVICES FOR EXCEPTIONAL CHILDREN

In response to growing public demand, public schools in recent years have rapidly expanded their special education services for exceptional children. The Metropolitan school district of Nashville and Davidson County is no exception. This community was among the first in the nation to provide additional help to pupils with learning difficulties. Beginning with the City and spreading into the County, progress in recent years has been especially good. Rapid population growth in Davidson County, as well as other factors such as the shortage of qualified teachers, and financial and housing problems, have hindered serving all of the children who need help, even though the desire has been present among the community, school board, and professional staff. The years ahead will see a greater population in this community and very probably an even more rapid increase in the number of exceptional children requiring services. Wise planning at this stage can insure more adequate services for future pupils with unusual talents and problems.

In General

Why Special Education? Exceptional children are those boys and girls who are so different in psychological or physical characteristics that they need different educational programs in order to work up to their capacities. Included in this broad category are both the gifted and the handicapped. Children with highly superior scholastic capacity and those with special talents, as well as those who have the potential to become the innovators and evaluators of our society, are a special challenge to us since from their ranks will come leaders of all types. The field of the handicapped includes the speech and hearing impaired, those with non-sensory physical impairments (including the crippled and special health cases), the mentally retarded, the visually limited, and the emotionally disturbed.

In an era of mass education and teacher shortage, it is not surprising that many children who are markedly different are unable to work up to their full potential in the regular grades. Special education refers to the additional school services provided exceptional children over and above those usually available to average children. Included are special day schools and classes; hospitalized and homebound instruction; periodical instruction from especially trained itinerant teachers or therapists; specialized equipment, housing and supplies including enriched library facilities for the gifted; special transportation arrangements; and consultants, supervisors and teaching personnel with training beyond that required for the regular classroom teacher.

The provision for such services in Nashville and Davidson County has been brought about by many forces. Not the least of these has been the growing recognition that handicapped persons can become contributing members of society and that our very survival depends upon the optimal development of those with unusually high talents and abilities. Other forces have fostered education for exceptional children. In this community especially, large sums of money have been secured by private groups through public drives, funds so gathered being used in pump-priming operations to demonstrate the effectiveness of education for the handicapped.

In recent years an even more powerful impetus has come from the parents of exceptional children. These energetic people have pressed their cause to school boards, superintendents, principals, teachers, legislators and public alike. Still other factors have affected the growth of the field, including the compulsory laws for all children to attend school; our increased attempt to live up to the ideal of equal educational opportunities for all; rapid population increases; growing medical advances creating an increased number of multiply handicapped and chronically disabled children; and the need for the reduction of the range of individual differences within any one classroom. There is every indication that this growth in school services will accelerate in the years ahead. It behooves the Nashville Metropolitan area at this time to plan and prepare to meet a growing need and demand.

An Overview of Services. During the school year 1962-63, 109 teachers and speech therapists were employed by the Nashville Metropolitan schools. These persons served 3,204 children (or just over three percent of the school population of the community). An overview of services is outlined in Table 14. A more detailed discussion of services for the various areas of exceptionality will follow. In recent years both the Nashville and Davidson County public schools have employed a full-time supervisor of special education to administer the program. Other valued services have come from the school psychology program.

An Overview of Unmet Needs. To what extent are the Nashville Metropolitan schools providing special services for their handicapped and gifted pupils? Table 15 is an attempt to arrive at this. It is difficult to estimate accurately the prevalence of exceptional children in the various areas of exceptionality. The percentages used in this report are comprised of various estimates found in the professional literature, some of which vary widely. Thus they should be regarded as yardsticks for planning and not as precise figures.

It is usually estimated that between eight and 10 percent of all children are handicapped and/or gifted. We have pointed out that only three percent of the pupils in this community received special education services in 1962-63. Thus, it would appear that over 60 percent of the exceptional children in Nashville and Davidson County were without such services. In no case were as many as 70 percent

TABLE 14

SPECIAL EDUCATION SERVICES FOR EXCEPTIONAL CHILDREN IN NASHVILLE AND DAVIDSON COUNTY SCHOOLS

1962-63*

Area of exceptionality	Total		White		Negro	
	Teachers	Pupils	Teachers	Pupils	Teachers	Pupils
Gifted	1	18	1	15	(a)	3
Speech and mildly hearing impaired	11	1,219	9	1,010	2	209
Severely hearing impaired	5	50	5	50	--	---
Non-sensory physically impaired						
Homebound	10	189	8[b]	169	2	20
Hospitalized	5	406	4	183	1	223
Special classes for cerebral palsy	3	36	3	36	--	---
Educable mentally retarded	58	1,036	40	741	18	295
Trainable mentally retarded	6	126	4	96	2	30
Visually limited	4	55	3	42	1	13
Emotionally disturbed	6[c]	79[c]	6	79	--	---

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* Of a total public and private school population of approximately 93,000 of which 20 percent are Negro.

[a] Integrated.

[b] In addition, five part-time teachers of the homebound were employed, three by the City and two by the County. Pupils served by them are included in the enrollments.

[c] Two teachers of the emotionally disturbed serving 44 pupils in the County are at Central State Hospital. While classified as teachers of the hospitalized, they are not included under that category in this table because they serve the disturbed child. Included are three teachers at the Wills Center, Vanderbilt University, employed by the City system.

TABLE 15

ESTIMATED EXTENT TO WHICH EXCEPTIONAL CHILDREN ARE NOW SERVED BY METRO SCHOOLS

(Based on school population of 93,000 in 1962-63)

Area of exceptionality	Pupils: Needing service: Number	Pupils: Needing service: Percent of 93,000	Pupils: Receiving service: Number	Pupils: Receiving service: Percent of number needing
Gifted[a]	1,860	2.0	18	(a)
Speech and mildly hearing impaired[1]	3,255	3.5	1,219	37
Severely hearing impaired[2]	93	0.1	50	54
Non-sensory physically impaired[3]	930	1.0	631	68
Educable mentally retarded	1,860	2.0	1,036	56
Trainable mentally retarded[4]	186	0.2	126	68
Visually limited[5]	84	0.1	55	65
Emotionally disturbed[6]	186	0.2	79	42

[a] Less than one percent. Gifted children have been grouped together in a number of schools in both the County and City for some time, so the percent served is not meaningful.

[1] The usual case load does not exceed 100 when pupils are seen twice a week. In Davidson County two speech therapists had average case loads of 181 seen once per week.

[2] In addition, a total of 39 children from Davidson County were enrolled at the Tennessee School for the Deaf.

[3] Remarkably large numbers of children were enrolled in the hospital program for short periods of time, one teacher seeing 223 pupils; thus the percent served is inflated.

[4] In addition, a total of 73 children from Davidson County were enrolled at Clover Bottom Home.

[5] A total of 36 children from Davidson County were enrolled at the Tennessee School for the Blind

[6] These figures are confounded because some of the 79 children served in this community came from surrounding counties. An additional 29 pupils were enrolled at Project Re-Ed and 12 at the Fairfax Academy.

of the estimated children served. The area of greatest neglect is that of the gifted, where only a small beginning has been made at providing special classes for such youngsters. Again, more details on the unmet needs by areas of exceptionality follow.

How do the services in the Nashville Metropolitan school district compare with those in selected local school systems throughout the United States? It is possible to get some comparative data by examining the most recently published U.S. Office of Education figures for February, 1958 (including the 1958 figures for Davidson County and Nashville). There is no reason to believe that the rate of expansion of the cities selected in the past five years would not be comparable.

As shown in Table 16, of the nine cities contrasted with Nashville, the majority were making greater efforts in almost all areas of exceptionality. This table again demonstrates that while considerable has been accomplished, much more remains to be done.

Of even greater importance than the quantitative data in Tables 14, 15 and 16 is the quality of services as contrasted with their quantity. With critical shortages of teachers, it has been difficult in all education to foster quality of instruction. The problems have been tenfold in special education, for there are very few teachers, especially of the handicapped, so dedicated and interested that they choose to leave regular instruction to get specialized preparation to work in an area of disability. This community has been remarkably fortunate in finding many able educators to serve. However, unless highly trained and competent additional teachers can be employed, it will not be possible to meet future needs.

Nationally recognized administrators and supervisors in special education with quality teachers and therapists will do an outstanding job under less than ideal conditions. Thus recommendations on personnel should take precedence over those on housing, equipment, and transportation. While it is recognized that a truly outstanding program of services can be achieved only by comprehensive, well-balanced programs with adequate housing, equipment, etc. providing the tools needed by the educators to do the job, one cannot compromise on teacher competence. Quality leadership is needed to coordinate and supervise the special education services. No one or two administrators of special education can have competence in all areas of exceptionality. With a community the size of the Nashville-Davidson Metro system, specialized consultants and supervisors should be provided for teachers in each area because of the rapidity of change in specialized teaching procedures. Thus our major recommendation is that top flight central office supervisory staff be secured at the earliest possible moment.

TABLE 16

COMPARISONS OF ENROLLMENTS IN SPECIAL EDUCATION PROGRAMS IN SELECTED LOCAL SCHOOL SYSTEMS THROUGHOUT THE UNITED STATES, FEBRUARY 1958

Area of exceptionality	NASH. METRO.	Oakland Calif.	Dade Co., Florida	Indianapolis Indiana	Kansas C. Mo.	Rochester New York	Cincinnati Ohio	Tulsa Okla.	Portland Oregon	Columbus Ohio
Total population - all ages (in 1,000's)	300	300	284	469	473	316	484	257	371	468
Gifted	-	18	84	491	-	360	-	615	-	-
Speech and mildly hearing impaired	1,140	3,456	3,270	1,799	3,290	1,600	1,089	1,426	1,863	772
Severely hearing impaired	38	207	753	188	-	93	120	33	56	84
Non-sensory physically impaired	158	688	1,143	359	641	238	290	257	927	283
Educable mentally retarded	689	1,110	1,062	1,371	1,610	967	1,536	2,098	442	525
Trainable mentally retarded	18	-	157	-	-	-	-	30	-	-
Visually limited	40	89	152	85	43	65	82	18	148	38
Emotionally disturbed	-	-	177[a]	46	76	40	-	-	-	208

[a] An additional 965 problem youth were in a special program.

Source: U.S.O.E. Bulletin OE-35027: Special Education Enrollments in Local School Systems.

Gifted Pupils

There is a strong demand nationally and locally to provide special services for the gifted. Nashville City schools have had a study commission working in this area for some time which resulted in the establishment, on an integrated basis, of one class for the gifted last year. As we understand it, there is a plan to add one more special class in the City and three in the County in 1963-64. Ability grouping has been a practice in a number of schools in both the City and County for some time. Thus Table 15, showing that less than one percent of the gifted are served through services other than the regular grades, is probably inaccurate. There is little doubt that the estimate of 1,860 children with I.Q.'s of 125 and above in this community is a conservative one; however, we believe we can justify our two percent prevalence estimate in Table 15 as gifted children in need of special education. These are the students who are not working up to their capacity in the regular grades and need either to have this program supplemented, or to be placed in another program more in keeping with their needs. There are many types of programs for the gifted which fill this purpose, with special schools and classes being among the most popular.

Programs labeled as enrichment are becoming more and more untenable. We believe a gifted child should be allowed to advance at his own pace both in depth and breadth. We need to do a much better job of early identification of the gifted. This is probably only going to come about when we find a way of giving individual intelligence tests and tests of creativity and other unusual talents to all children. With this information, planning can begin immediately for a school program geared to the needs of the unusually able. Here again, the key is to obtain the services of a knowledgeable consultant in this area.

For the foreseeable future, most of the services for the gifted will be provided by general education in the various forms of grouping and enrichment activities. Special education has a role to play only for the gifted who require services over and above those which it is reasonable to provide in the regular school program. This will largely take the form of special schools and classes and such specialists as itinerant teachers of the gifted and especially trained consultants. Thus we see education of the gifted as a joint responsibility of general and special education. This is an area, among many others discussed in this report, in which there is need for research and experimentation.

Speech and Mildly Hearing Impaired Pupils

The Nashville and Davidson County schools employ 11 public school speech and hearing therapists, seven in the City and four in the County. Of this number, two are Negroes, both being employed by the City school system. In our view, the seven speech therapists in the City are able to provide an adequate program for the children they serve. This is not to say that the Nashville City schools have not had a waiting list; however, the unmet needs in the County have been much greater. Probably the biggest problem which has faced the Nashville City schools is in keeping qualified speech and hearing therapists, the turnover being rather sizeable. The speech correction program in the larger Davidson County area should be brought up to the level of that of the City. Here, two of the therapists have been seeing 181 children, but only once a week. This is an inadequate speech therapy program. There is an immediate need for at least double or triple the number of therapists now employed by the County. In our view, adding one Negro and four white therapists at the outset would at least begin to equalize the two programs. Here again it should be pointed out that the State reimburses approximately two-thirds of salaries of speech therapists on the State salary schedule, including the provision of a State increment.

Severely Hearing Impaired Pupils

This category includes the severely hard of hearing and near deaf who need to be in a special day class program. Such pupils do not get sufficient specialized help from an itinerant speech and hearing therapist working with them once or twice a week for thirty minutes. The community has had special classes for the hearing impaired, operated as a cooperative program, since approximately 1952. For some years these were located at Murphy School in Nashville. In approximately 1956, the program was transferred to Julia Andrews in the County, and in 1962 was shifted to Jere Baxter in the County. Throughout, this has been a cooperative program between Nashville and Davidson County. This past year, five teachers have served 50 children. This represents 54 percent of such children with homes in the County and City who needed such services. Most of the remaining 46 percent are enrolled at the Tennessee School for the Deaf in Knoxville.

As far as we can see, there is no substantial waiting list for children to the Jere Baxter program. Furthermore, it is not likely that this program will increase to any marked degree in the immediate years ahead, except to the extent that the population increases. In fact, it is likely that there will be a growing number of multiply handicapped children whose parents will probably want them enrolled at the Tennessee School for the Deaf or some other special facility.

Non-Sensory Physically Handicapped Pupils

Included in this category are the children on the hospitalized and homebound programs, as well as the children enrolled at the special classes for the cerebral palsied and other crippling conditions at Buena Vista School in the City. The special classes at Buena Vista have served children from both the County and the City cooperatively since the 1940's.

The Tennessee hospitalized program is an unusual one. The salaries of these teachers (on the local salary schedule figures) are borne 100 percent by the State, since many of the children on the hospitalized program come from counties outside of this community. In this case, Davidson County has tended to keep hospitalized teachers on its rolls, even though these teachers may be working at such hospitals as Vanderbilt, Baptist, and General in the City. There are five teachers of the hospitalized on the City rolls, two working at the Junior League Home and three in the experimental program for the emotionally disturbed at Wills Center, Vanderbilt University Hospital. It is extremely important that the State and local school officials continue to utilize their prerogative in the supervision of these public school teachers who are working in private agencies.

It is probably more difficult to discern future trends in the area of the non-sensory physically handicapped than in any other. There is some indication that the absolute number may hold steady or even decrease, but that more and more of these children will have congenital and multiple handicaps. This will involve truly creative and imaginative teaching arrangements if their needs are to be adequately met. This past year, two multiply handicapped children in the County have availed themselves of new State legislation wherein the State has provided $1,000 toward the cost of their education at a special private school for the multiply handicapped -- one in Texas, and another in Pennsylvania.

The hospitalized and homebound programs are probably among the strongest in the nation and a fine job is being done at Buena Vista. While the number of teaching positions approved for special classes for the cerebral palsied has remained the same for the past several years, the number of children being served has been steadily decreasing. Therefore, no sizeable expansion of services is envisioned. However, the changing population in the special classes for the cerebral palsied toward more and more who are also mentally retarded demands major overhaul and change. Half of the children at Buena Vista are now severely mentally retarded; many of the remaining are educable retarded and slow learners; and not more than half a dozen children are of normal or above intelligence. This latter group should be integrated more into the public schools, but continue to receive the ancillary services of the physical therapist and speech correctionist.

We are not sure how best to serve the half of the 36 children out at Buena Vista who are of educable mind, namely having I.Q.'s of 65 and above. A number of plans should be explored. One would be to retain a special class or two in some centrally located school. Another would be to think seriously about building one school in each of the three proposed districts of the school system with a wing to serve a variety of handicapped children and to service a small number of cerebral palsied at each of these. Some of the children might be enrolled in the regular grades, and others in special classes for the educable mentally retarded. We do believe than an increased number of brighter, less-involved children could be enrolled in regular grades and have the occupational therapist, physical therapist and speech correctionist work with them on an itinerant basis.

Mentally Retarded Pupils

This is by far the most extensive program in both Nashville and Davidson County in terms of teachers employed. In fact, 58 of the 109 special education teachers in the systems are special class teachers of the educable mentally retarded. In addition there are six teachers of trainable children.

Over the years, as services in both communities have increased, the emphasis has tended to be on quantity rather than quality, with special classes being established primarily to provide relief for the regular classroom teacher. Furthermore, children have not been placed in special classes until they have had two or three years of failure in the regular grades. This has created an impossible task for the special teacher. While we see the number of special classes for such pupils increasing still further in the years ahead, we believe the challenge now is to move toward quality. As our recommendations show, this can best be done by employing one or two full-time trained consultants in this area; by starting preschool services for the culturally disadvantaged; and by developing a strong occupational-training (study-work) program for the adolescent educable mentally retarded, including placement service.

While special classes for the "educable" retardate have been operated separately by the County and City, the special class services for the "trainable" retarded have been a cooperative endeavor, the City schools undertaking to serve such children. Most of the remaining children in this category are enrolled at Cloverbottom Home, at private residential facilities, or remain at home unable to attend school. Thus there is probably not a very extensive waiting list in this area.

In the past, the State has reimbursed on a formula of 60 percent of State and 40 percent of local funds, not to exceed $360 per child of 60 percent of approved expenditures. The Tennessee Miscellaneous Appropriation Bill of 1963 has made it possible for an additional amount to be given to match the salary increase for teachers in the regular program. Pre-approved expenditures may provide for the teacher's salary, attendant services, special transportation and equipment, materials and supplies.

Visually Limited Pupils

Children in this category have been grouped into those that are blind and those that are partially seeing. With improved optical aids and lighting, most of the marginally visually-limited children are fitting into the regular grades and the division line between the blind and the partially seeing is fading. Thus, we now speak of the group as the visually limited. In keeping with this trend, teachers who specialize in this area are more and more developing competencies to work with both the inkprint and braille-type child. This community has four teachers serving 55 of the estimated 84 children in need of service. An additional 36 children from Davidson County are enrolled at the Tennessee School for the Blind located in Donelson as day or resident students. Thus we know of no waiting list in this area and can only anticipate that any increase in the field will be primarily due to a population increase.

The greatest need is for an itinerant teacher of the teen-aged visually limited, who could probably also serve as coordinator of the program. Another problem is that there will be more and more multiply handicapped visually limited, including those who are mentally retarded. Every attempt should continue to be made to integrate, if not enroll, the intellectually able visually limited who make up the large majority of pupils in this area into the regular grades. In this regard, an excellent record has already been established at Howard School. However, we see a need for at least three types of services: (1) residential school services for some blind children, (2) the existing program in the public day schools augmented by types of plans and services other than the predominant resource room now provided, and (3) provision for the multiply handicapped visually limited pupils, who often are mentally retarded.

Emotionally Disturbed Pupils

In the past two years, this area has mushroomed in the community as no other. We estimate that 186 children are so disturbed that they cannot remain in the regular grades, but must be provided some special service. Now available in the community is an increasingly wide range of services. Included are three teachers on the rolls of the Nashville City schools working in the Wills Center at the Vanderbilt School of Medicine with disturbed children. There is one special class at Warner School for the emotionally disturbed. In the County, two teachers on the hospitalized payroll are assigned to Central State Hospital. In addition, Peabody College and the Tennessee State Department of Mental Health are cooperating in an eight-year experimental boarding school known as Cumberland House, a part of Project Re-Ed, for emotionally disturbed children. There is also Fairfax Academy, a private facility in the community, serving 12 disturbed children. There is an unusual need for a coordinating council in order to utilize these facilities to the maximum.

There is a good possibility than an increasing public school service for the emotionally disturbed will need to be established. As yet, services which now exist should be viewed as experimental programs because we have little evidence as to their effectiveness. Too, we are not sure of the role we can expect teachers to play on the mental health team made up of psychiatrists, clinical psychologists and social workers.

Summary of Recommendations

An extensive report, filed by the team of experts who worked on this aspect of the report, contains detailed recommendations which are to be made available in full to the new Metropolitan Board of Education. The major recommendations of this chapter are summarized in outline form as follows:

1. Personnel
   a. A Director of a Division of Special Education at a level comparable to the Director of Pupil Personnel Services.
   b. Four or five central office supervisors in a Division of Special Education in the areas of: mental retardation, speech and hearing, non-sensory physically handicapped and education of the gifted.
   c. Part-time coordinators in the areas of the visually limited and the emotionally disturbed.
2. Program
   a. Availability of all special education programs immediately to all exceptional children, regardless of race.
   b. Establishment of a strong program of in-service education for teachers of the handicapped and gifted children to upgrade the quality of instructors, and utilization of the resources of the State Department of Education and institutes of higher learning in the community.
   c. Coordination of special education personnel with health, psychological, social and educational personnel to form a comprehensive evaluation team to work on the early identification and placement and continuous evaluation of all pupils.
   d. In the interests of economy and efficiency, utilization by the Metropolitan School System of services of other community agencies or programs such as the State Vocational Rehabilitation Program, Bill Wilkerson Hearing and Speech

Center, the Middle Tennessee Mental Health Center, hospitals, Junior League homes, parent-sponsored schools, State facilities, etc.

e. A close liaison between the parochial and public schools to assure the smooth referral and placement of handicapped parochial school pupils, when need for public special education facilities is indicated for such pupils.

f. A study to be undertaken to determine whether general or special education should take responsibility for slow learning pupils, who make up approximately 20 percent of the school population, who have IQ's between 75 and 90 and who come from the most culturally disadvantaged homes and neighborhoods of the community.

3. Housing

a. Proper attention to the special facility requirements of handicapped children and/or adults in all school buildings.

b. Special spaces in all school buildings for use of speech and hearing therapists, itinerant teachers and other specialized personnel occasionally providing services to one or more pupils in a school.

c. Geographic location of special schools and classes or service centers to minimize transportation inconvenience and cost.

d. Adequate central office facilities for administrative, supervisory and secretarial staff, including special education curriculum and materials laboratory.

4. Services for Gifted Children

a. Continuation of the study and planning which have led to the initial efforts to provide a differentiated program of instruction.

b. Formulation of a clear statement of specific educational goals prior to the establishment of any special program for the gifted because of the experimental and developmental stage of this field.

c. A consideration of various types of grouping and enrichment which will improve opportunities for the gifted as a part of the general program of instruction.

d. Consideration of special schools and/or classes as part of the program of special education.

e. A continuous and critical evaluation of instructional procedures and content materials used in the special programs devised to serve the gifted.

f. The placing of staff assigned in this area within the administrative structure in such a way as to serve both general and special education and have well-established working relationships with personnel services and research specialists.

5. Speech and Mildly Hearing Impaired Pupils

a. Employment of at least five additional therapists, four white and one Negro, as soon as possible so that all schools in the Metropolitan system can have services for pupils who need it at least twice a week, maintaining the State case load requirement of 75 children seen twice a week.

b. An extension of the hearing and speech testing programs as carried out in the Nashville City system during recent years to cover the entire Metropolitan School System.

c. Extension and strengthening of the program of cooperation with the Bill Wilkerson Hearing and Speech Center, particularly with regard to referrals.

d. Adequate provision for appropriate health services for children with speech and hearing disorders whose families are unable to provide it.

6. Severely Hearing Impaired Pupils

a. Relocation of the special class program provided by five teachers at Jere Baxter School in Davidson County for 47 deaf and very hard of hearing pupils from both the

County and the City system. The Jere Baxter School is located on the noisy, busy Gallatin highway on the eastern outskirts of the community. Therefore, it is necessary that the program be moved to a more desirable, more suitable, quiet and traffic-free regular elementary school nearer the Bill Wilkerson Hearing and Speech Center and the Peabody College campus. Student teachers of the deaf, consultants and specialized hearing, testing and other services would then be more accessible.

b. The provision of improved hearing referral and diagnostic services to identify all severely hearing impaired children at a very young age, and certainly before the age of three.

c. The provision in the public schools of a pre-school program for severely hearing-impaired children, or the development of a cooperative program with the Bill Wilkerson Hearing and Speech Center (which has provided such services in recent years), the schools employing the teachers with State reimbursement.

d. The designation of a well-trained, public-school-oriented teacher of the deaf as head teacher for the special classes in the public schools. The supervisor of speech and hearing recommended above would be a public school speech therapist, not necessarily a trained teacher of the deaf.

e. Addition of teachers of the deaf -- probably not more than one or two additional teachers of the deaf will be needed for the present.

f. As in other areas, a concerted effort by the school system for the provision of a staff of full-time, permanent, trained, quality teachers in this program.

g. The provision of an in-service education program for regular classroom teachers who have children with severe impairments to enable them to work effectively with hearing handicapped.

h. Adequate attention to keeping the mechanical equipment used for amplification purposes in the program in good working order.

7. Non-Sensory, Physically Handicapped Pupils

Concerning the special class program for cerebral palsied children at Buena Vista:

a. The establishment of a special school or center to serve the trainable retarded, and severely retarded cerebral palsied.

b. A continuation of the Buena Vista type of program for cerebral palsied children of educable mind. Those who are educable mentally retarded should probably continue in the self-contained special classes now operating. A more integrated program is needed for the cerebral palsied pupils who have more intellectual potential, by placing them in the regular grades for as much of their school program as possible. Brighter cerebral palsied students probably should be enrolled in the regular grades, with the special class teacher serving as a resource person to them.

c. An expansion of ancillary services especially to provide adequate screening, placement and programming. Speech and physical therapy for cerebral palsied pupils in all settings should be continuously available.

Concerning the homebound program:

a. A maximum pupil load for homebound teachers of 10 to 12 pupils.

b. Three hours of instruction time per pupil per week, consisting of at least two periods of one and one-half hours each.

c. A division of pupil load to allow both an elementary and a secondary home instruction teacher to teach in the same geographical area.

d. Screening of pupils for scholastic capacity who have never been enrolled in a classroom and are being placed on a homebound program for the first time.

e. A requirement that children, in order to be placed on home instruction, are expected to have a minimum homebound period of six weeks.

f. Provision of a substitute teacher upon the absence of a homebound teacher.

g. Utilization of the neighborhood school in providing a well-rounded school program for the homebound child.

h. Availability of school services (visiting teacher, psychological examination, etc.) when needed.

i. Permission for the homebound teacher to transport pupils on field trips or visits to the school, since the chronically ill, homebound child is even more in need of this type of experience than the child in school.

Concerning the hospitalized program:

a. A continuation of the present plan of the State reimbursing fully the salaries of all teachers of the hospitalized, since many pupils on the rolls are from outside the local school system.

b. A continuation of supervision of all teachers of the hospitalized, especially those working in private agencies, by State and local supervisory personnel in special education.

8. Mentally Retarded Pupils

Concerning mental retardation generally:

a. A re-examination and a redefinition of the classification system for the mentally retarded in keeping with national trends and recent experimentation.

b. More extensive psychological services available to mentally retarded pupils and their parents. This should involve professional help in the form of counseling and other guidance services in addition to the conventional one of diagnosis.

c. Additional classes for the retarded, to be started only after trained teachers are available.

d. The reorganization of special classes by levels -- pre-school, primary, intermediate and junior and senior high school levels.

e. Proper steps forward on the badly needed programs of in-service training for teachers of the mentally retarded and a coordinated curriculum for the educable and trainable pupils.

Concerning the program for educable retarded pupils:

a. The establishment of a special high school for the mentally retarded and possibly slow learner with emphasis upon occupational training, since with a growing emphasis on academic excellence, the needs of the educable mentally retarded cannot be met in existing high schools. This should not be a technical or trade school for these children, since information on occupational change indicates that retardates of the future will not be employed in the traditional trades, but rather in the service areas and unskilled jobs in the community, including factories where specific trade training is not required. This program would need to be coordinated with the State Vocational Rehabilitation services and the public school vocational and technical programs discussed in Chapter VIII of this report.

b. Establishing public pre-school nursery and kindergarten programs in poor neighborhoods where large numbers of the culturally deprived, mentally retarded are located.

c. The screening and special class placement of all children entering school not later than at the outset of their school careers, rather than after two or more years of failure. It may be found necessary to train teachers with basic background in tests and measurements to be employed on 12-month contracts to do much of this work during the summer months.

d. A program of experimentation and development on methods of educating the small percentage of so-called neurologically impaired, mentally retarded, who come from above-average homes and have been variously labeled brain-injured, hyper-kinetic and perceptually impaired. It is unlikely that these children will get an adequate education in our existing special classes, which serve primarily the retarded from inadequate homes.

e. Abandonment of the practice of requiring a parent's signature before placement of a retarded child in a special class. In lieu thereof, attempts should be made to gain the oral consent and understanding of the parent before such a move is made whenever possible, retaining the final decision on school placement with the school system.

f. The provision of above-average housing for special classes for the mentally retarded, since they spend two to three years in the same class. In many cases, classrooms for these children are the most sub-standard, noisy, poorly lighted and ventilated in the school, and too often located in basements.

g. Initiation of a study of the best type of special-class plant and equipment for the EMR at the primary, intermediate and secondary levels.

h. A clustering of special classes into districts or regions of the school system so that at least two or more classes are available in the same school as long as such classes are to continue to be housed in the regular public schools. Such classes, when housed in regular public schools, should be placed in schools where the principal and staff accept the retarded as an integral part of the school community and where retarded pupils have regularly available to them the benefits of the entire school operation, such as educational TV, physical education, music, art, dental examination, school lunch, assembly, etc.

i. Experimentation with team teaching, programmed instruction and other approaches for serving larger numbers of children in this area more effectively.

j. A thorough study of class size requirements in special classes. On the one hand, teachers with a number of hyper-active, distractible children probably should have substantially lower enrollments than those working with the culturally disadvantaged, who should be able to serve as many pupils as in a regular classroom. On the other hand, some way should be found to increase enrollments in other classes, perhaps through such innovations as teacher assistants, team teaching, etc.

Concerning the program for trainable pupils:

a. The establishment of one special school for multiply handicapped children (including a sheltered workshop and recreational training program) in a central location in the community to serve approximately 100 children, with a possibility of expansion to double that amount in the future. It should serve, at the outset, the trainable children now enrolled in the six special classes operated for them, as well as the non-educable cerebral palsied (IQ's below 65) enrolled at Buena Vista school. (Speech and physical therapy must be provided these latter pupils.) It should also serve other types of severely retarded, multiply handicapped children. This undoubtedly should be an experimental facility, including a boarding school arrangement, supported in part if not in large measure by Federal and State funds. A cooperative program with Clover Bottom Home may be desirable. While this should be a community boarding and day school, it perhaps should serve children in a broader area than simply the Metropolitan school district. It should therefore be developed cooperatively with the State government.

b. A thorough evaluation of the present program for the trainable mentally retarded. It is possible that this is one of the weakest programs operated in the Metro system.

c. The development of an integrated curriculum with well-established goals leading to occupational productivity in a sheltered environment.

d. A consideration of the possibility of serving some trainable children at the Clover Bottom Hospital and School and Donelson as boarding pupils Monday through Friday.

9. Visually Limited Pupils

a. The employment of an experienced special teacher to serve as consultant and part-time itinerant teacher of high school visually-limited students of average or above intellect.

b. A consideration of the necessity of augmenting the present "resource room plan" by providing an itinerant teacher service reaching down into the elementary school.

c. Because of increased numbers of multiply-handicapped, visually-limited children, including those who are mentally retarded, establishment of procedures for enrolling non-educable, visually-limited pupils (IQ's below 65) in special day schools for the multiply handicapped as recommended above. The Tennessee School for the Blind, it is indicated, may establish a department for the multiply-handicapped, blind child at the present site for the Negro students on Lebanon Road, which could serve the community's children in this category on a day or residential basis.

d. Consideration for the establishment of a self-contained special class for the visually limited, or the enrollment of some children full-time in the resource room. These pupils would be largely the visually limited who are unable to make progress in the regular grades, and may be slow learners, educable mentally retarded, or remedial education cases.

e. Establishment of qualifications of teachers for the visually limited such that they have competence in teaching both blind and partially seeing together in the same education setting.

f. Establishment of a more effective liaison between referral agencies, the physicians and the schools, with a view to more adequate and earlier screening to identify visually limited pupils.

g. Establishment of volunteer services for brailling textbooks and recording instructional materials otherwise not available to these children.

h. If integration of the races in special education cannot be immediately attained, consideration of the establishment of a teaching position which would be a resource room plan for the elementary schools in the morning, and an itinerant teacher plan for the high schools in the afternoon. A fully integrated program regardless of race would remove the need for this recommendation.

i. A study of the possible advantages of locating all special class and resource room services for the visually handicapped pupils in the Donelson schools. This would permit merging into a total program the services of the Tennessee School for the Blind. The Metro schools would be expected to enroll a number of the more able blind children at the residential school on a day basis.

10. Emotionally Disturbed Pupils

a. The employment of a part-time consultant (or team of consultants) to make a special study in the area of the emotionally disturbed. This area cuts across all of the mental health fields.

b. The establishment of an advisory committee, to be chaired by the Director of Special Education and to include heads of such facilities as Project Re-Ed, the Wills Center at Vanderbilt, Fairfax Academy, the Nashville Mental Health Center, the State Department of Special Education and so forth, so as to avoid gaps and duplication with the sudden proliferation of school programs, public and private, for the emotionally disturbed.

c. The preparation of a manual of operations, including definitions of pupils to be served and methods of identification and referral, insofar as special classes for the emotionally disturbed are to be conducted.

d. Exploration of the desirability of contracting for services for the emotionally disturbed as an alternative to establishing additional, expensive special classes.

XI

PERSONNEL

This chapter covers major matters of personnel administration which should be considered by the new Metropolitan School System.

Bases for Determination of Salaries to Teachers

The primary objective of a salary policy for any school system is to provide needed staff with suitable personal and professional qualifications and in sufficient numbers to perform the work of the school system. The processes of the educational operation are, in the main, those undertaken by classroom teachers. The quality of the educational program in a school system must thus depend in great part upon the quality of personnel in classrooms.

In order to accomplish this end, salary plans must contribute to attracting and holding required teaching, supervisory and administrative staff and encouraging continued professional development.

There are several factors which are usually discussed in considerations for the variation of salaries paid individual teachers in a school system. Attempts have been made from time to time in school systems to make allowances for one or more of the following:

1. Degree of responsibility of assignment
2. Amount of professional training required for assignment
3. Amount of training individuals actually possess
4. The diligence with which individuals exert effort in performance of work in their assignments
5. How well individuals perform work in their assignments
6. Amounts needed to attract and hold staff in various assignments
7. Amount of time required or difficulty of assignments
8. The real or traditionally assumed importance or level of sophistication of various positions

9. Attractiveness of assignments, particularly as to working conditions

10. Years of service

It is not feasible, by virtue of difficulty of measurements and contradictions in principle, to design a salary plan which takes all of such elements objectively into account. Moreover, even with a simplified set of salary objectives, it should be clearly understood that salary inequities may be minimized, but not eliminated.

Some Basic Considerations

In the analysis which has been made by the survey staff, there are certain basic premises or assumptions which might or might not be accepted in principle by the Metropolitan Board of Education, but which it should seriously consider.

Importance of Salaries. The success of the new consolidated school system of Metropolitan Nashville-Davidson County will undoubtedly depend heavily upon the quality of teachers attracted to the growing system over the years ahead and the level of morale that is maintained. Salaries will have much to do with this.

Cooperative Development of Salary Plans. In order to maintain a proper professional atmosphere with respect to salary planning, the Board of Education, as a matter of policy, should formally maintain systematic communication between its own membership and representatives of organizations of teachers. Some of the most successful methods of developing salaries and making salary adjustments have resulted from representatives of those concerned sitting in committee with outside independent consultants as necessary in working out teacher salaries. An atmosphere of "labor-versus-management" in the school situation does not generate the kinds of decisions on salaries and other aspects of the work of teachers that induce a harmoniously operating system. The Board of Education should officially and formally recognize appropriate representatives of teachers in working out these and similar decisions.

Non-Monetary Factors. A rational salary plan at adequate levels is not of itself sufficient to produce a professionally motivated organization of educational personnel and supporting staff capable of coping with the educational readjustments which the Metropolitan School System will be up against for many years to come. Questionnaires to teachers in the Davidson County and Nashville City school systems have shown many areas, non-monetary in nature, contributing to low teacher morale. Low teacher morale, even when manifested by dissatisfaction with monetary rewards, is often attributable to such other factors. On the other hand, without a reasonable salary program, there is no basis upon which to build job satisfaction and the kind of motivation essential to successful service in the educational profession.

Importance of Salary Levels. Experience in school systems throughout the country indicates that dissatisfaction with differentials and comparative salary levels of personnel on various steps and schedules is greatest where general levels are low. In this connection it is worth noting the following information obtained in the questionnaire to teachers in Nashville and in Davidson County: Of approximately 3,000 teachers, over 1,000 indicated that their present salary was unsatisfactory, and almost half considered maximum salaries for classroom teachers in the system unsatisfactory. Most of these teachers are employed in the Davidson County system, in which the salary level was considerably less than in the City system. This no doubt has been ameliorated by the increases since made by the commendable action of the Transitional Board in its 1963-64 budget. The first step in creating a financial incentive to accept employment and to continue employment in a school system is to provide adequate funds for reasonable salary levels throughout the entire range, from minimum to maximum.

Anticipating Change. A satisfactory salary plan must be projected into the future, taking realistically into account the increases likely to be required both by maturing of staff and changes in costs. Throughout the salary range, salaries should keep up with earning levels of professionals in the economy in general.

Comparative Standing of Teacher Salaries

A gross check upon the salary requirements to meet the competitive situation may be obtained by looking at salaries paid in school systems about the size of the new Metro School System. For this purpose, a group of school systems have been selected, most of which are in the Southern part of the United States. A summary of beginning salaries and maximum salaries in these systems in 1962-63 appears as Table 17.

The average beginning salary for these school systems was higher than that of the Nashville City system and considerably higher than that of the Davidson County system. Among the larger school systems, only Birmingham and Mobile had beginning salaries lower than those in the two systems as of 1962-63. Also, maximum salaries in 1962-63 in the two Metro school systems were below the average for this group of selected school systems, with the exception of the maximum with the doctorate in the City of Nashville system, which was about the same as the median but short of the actual arithmetic average of maximum salaries

TABLE 17

LIMITS IN SALARY SCHEDULES FOR SELECTED SCHOOL SYSTEMS, 1962-63

School system	Beginning salary, B.S.	Maximum salary, B.S.	Maximum salary, M.A.	Maximum salary possible and degree necessary	
Boston, Mass.	$4,740	$7,380	$7,860	$7,860	M.A.
Baltimore County, Md.	4,600	7,900	8,440	9,520	Dr.
Prince George County, Md.	4,800	7,900	8,200	8,800	Dr.
Indianapolis, Ind.	4,700	7,600	8,200	8,900	Dr.
Kansas City, Mo.	4,600	7,000	8,000	8,500	Dr.
Birmingham, Ala.	3,300	5,060	5,500	5,800	6 yr.
Jefferson County, Ala.	3,900	5,088	5,268	5,268	M.A.
Mobile, Ala.	3,600	4,700	5,000	5,000	M.A.
Broward County, Fla.	4,100	7,050	7,650	8,160	Dr.
Hillsborough, Fla.	4,000	5,680	6,140	6,590	Dr.
Memphis, Tenn.	3,850	6,250	6,500	6,810	Dr.
Fairfax County, Va.	4,600	7,000	7,300	7,600	Dr.
Kanawha County, W. Va.	4,000	5,135	5,700	6,000	Dr.
Forth Worth, Texas	4,660	6,460	6,660	6,920	Dr.
San Antonio, Texas	4,500	6,300	6,750	6,750	M.A.
Average	4,263	6,434	6,878	7,232	
Median	4,500	6,460	6,750	6,920	Dr.
1962-63 Nashville	4,000	5,960	6,320	7,040	Dr.
1962-63 Davidson County	3,785	5,819	6,100	6,125	M.A.+
1963-64 NEW METRO SCHEDULE	4,272	6,365	6,750	7,519	Dr.

Source: National Education Association, Research Division. Classroom Teacher Salary Schedules, 1962-63, Districts Having 6,000 or More Pupils. Research Report 1962 - R11. Washington, D.C.: the Association, October 1962. 112p.

shown in Table 17.

The last row of figures in Table 17 shows the beginning salary and the maximum salaries for 1963-64 as submitted by the Board of Education in its budget for that year. This shows that the adjustment made by the Board of Education just about brings the salary limits for next year up to the average for school systems chosen.

There is no such thing as comparable communities for such comparisons. One of the factors contributing to salary levels is size of community. Another factor of significance is economic resources of the community. For this purpose, a statistical operation is required to make allowances for differences among the communities in financial resources.

Information on per capita income in the 15 school systems shown in Table 17 was compared with beginning salaries. A statistical operation known as "regression" was undertaken to make adjustments in these communities for differences in income per capita to see how Nashville and Davidson County would stand in beginning B.S. salary if inhabitants of the communities had the same per capita income. This device showed that beginning salaries in the Metro systems would have been approximately $4,300 for the year 1962-63 had they been in keeping with the income level of taxpayers in the community.

Similar information indicates that in terms of the economic base in the new Metropolitan School System, the adjustments of 1963-64 are in line with what is to be expected in school systems of this size. This means that the recommendation by the Transitional Board for 1963-64 has just about brought the salary limits up to where they should have been in 1962-63. Advance information on salary schedules for next year shows that school systems throughout the country are increasing their beginning salaries and their maximum salaries, so that for the year 1963-64 it is to be expected that the Metro salaries will fall somewhat behind a table such as Table 17, when made for the year 1963-64.

Existing Salary Structure

As of the time of this survey, during the school year 1962-63, the salary structure in the two school systems was as briefly shown in Table 18. As this table indicates, the County system was lower at all levels of preparation in both minimum and maximum salaries and required more steps, that is more years, to reach maximum. Moreover, in the City there was a fourth level of preparation with an additional differential for the doctorate, a preparation level which did not exist for the County.

Both systems used an index type of salary schedule. By action of

TABLE 18

COMPARISON OF 1962-63 SALARIES IN NASHVILLE CITY SCHOOLS AND DAVIDSON COUNTY PUBLIC SCHOOLS

Preparation of teacher	Salary		Number of steps
	Minimum	Maximum	
B. S.			
City	$4,000	$5,960	16
County	3,785	5,819	20
M. A.			
City	4,360	6,320	16
County	4,030	6,100	20
M. A. +			
City	4,720	6,680	16
County	4,055	6,125	20
Doctorate			
City	5,080	7,040	16
County	-----	-----	--

the Transitional Board of Education in its budget for 1963-64, anticipated increases in State funds computed on the basis of teachers' salaries were applied to raising the levels in the Nashville City system and bringing Davidson County teachers up to that schedule. The resulting schedule for 1963-64 appears as Table 19.

In reviewing this schedule, the specialists on the survey staff dealing with salaries made the following observations:

1. There is no salary increment on either preparation level after the first year of service. This practice is undoubtedly related to the theory that a probationary teacher should not receive an increase in pay until she has been in the district long enough to prove herself.

2. After the second year of service there is an increment, but it is a nominal one amounting to only a one percent increase after the second year.

3. In the years ahead, it should be expected that career teachers will move during the course of their careers over to at least the master's level, in which case it is recommended that the number of steps on the B.S. schedule be reduced through a transitional adjustment, since it takes too long in 16 years to get to the maximum of B.S. and teachers moreover should be encouraged to move over to higher levels of training.

4. The 1963-64 schedule is partially a "progressive index" plan. That is to say, increments in absolute terms become a little larger at the upper end of this scale so that percentage increases are somewhat comparable. However, since the index base is the beginning B.S. teacher's salary of $4,272 as shown in Table 19, an index differential of four percent between the fifteenth and sixteenth steps, for example, on the doctorate level is no greater than the four percent index differential between the seventh and eighth steps on the B.S. teacher's level. Insofar as the purpose of the salary structure is partly incentive and encouragement for teachers to look to future salary levels, it is noted that the increment of $171 is proportionately a greater incentive for the teacher on step seven of the B.S. schedule than for the teacher on step fourteen or fifteen of the doctorate schedule. The type of schedule shown in Table 19 is common in the United States, where pressures of financing have tended to lift the bottom of the

TABLE 19

SALARY SCHEDULE ADOPTED BY TRANSITIONAL BOARD

FOR 1963-64

Step	B. S. teachers		M. A. teachers		M. A. + teachers		Doctorate teachers	
	Index	Salary	Index	Salary	Index	Salary	Index	Salary
1	1.00	$4,272	1.09	$4,656	1.18	$5,041	1.27	$5,425
2	1.00	4,272	1.09	4,656	1.18	5,041	1.27	5,425
3	1.01	4,315	1.10	4,699	1.19	5,084	1.28	5,468
4	1.04	4,443	1.13	4,827	1.22	5,212	1.31	5,596
5	1.07	4,571	1.16	4,956	1.25	5,340	1.34	5,724
6	1.10	4,699	1.19	5,084	1.28	5,468	1.37	5,853
7	1.13	4,827	1.22	5,212	1.31	5,596	1.40	5,981
8	1.17	4,998	1.26	5,383	1.35	5,767	1.44	6,152
9	1.21	5,169	1.30	5,554	1.39	5,938	1.48	6,323
10	1.25	5,340	1.34	5,724	1.43	6,109	1.52	6,493
11	1.29	5,511	1.38	5,895	1.47	6,280	1.56	6,664
12	1.33	5,682	1.42	6,066	1.51	6,451	1.60	6,835
13	1.37	5,853	1.46	6,237	1.55	6,622	1.64	7,006
14	1.41	6,024	1.50	6,408	1.59	6,792	1.68	7,177
15	1.45	6,194	1.54	6,579	1.63	6,973	1.72	7,348
16	1.49	6,365	1.58	6,750	1.67	7,134	1.76	7,519

scale to assist in recruiting new teachers, but have overlooked the career incentive.

5. In view of the relative position of beginning and maximum salaries, as shown in Table 17, and in view of the expectations of future increases in beginning and maximum salaries for the year 1964-65 and later, the Metropolitan Board of Education should consider lifting both beginning and maximum salaries.

A Recommended Five-Year Salary Adjustment Plan

In order to overcome some of the limitations noted above, it is believed possible to implement further basic salary policy already incorporated into the plan shown in Table 19 and move towards salary levels which will be equitable and appropriate for attracting and holding professional staff in the new Metropolitan School System.

The schedule shown in Table 20 could be attainable in a period of five years. This schedule was derived as an index schedule on the following basis:

1. To provide what appear to be desirable beginning and maximum salaries at each preparation level as compared to other school systems
2. To provide the appropriate number of steps and increments progressing from the beginning salary to the maximum at each preparation level
3. To provide a progressive index based upon the beginning B.S. teacher's salary, such that increments would move from three percent of this salary to as much as seven percent of this salary, depending upon the salary level

In deriving this schedule, the beginning salary was increased at each step by three and a half percent, then rounded to the nearest even percent of the base salary for beginning B.S. teachers.

This would be a desirable level for salaries in the year 1964-65. However, the practical economics of the situation would undoubtedly not permit this to be achieved that soon, or even in 1965-66. For this reason, it is recommended that the Metropolitan Board of Education study such a plan as a five-year goal and work toward it in what appears to be a feasible series of transitional steps

TABLE 20

SUGGESTED SALARY SCHEDULE

FOR 1968-69

Step	B. S. teachers		M. A. teachers		M. A. + teachers		Doctorate teachers	
	Index	Salary	Index	Salary	Index	Salary	Index	Salary
1	1.00	$4,400	1.08	$4,752	1.16	$5,104	1.24	$5,456
2	1.03	4,532	1.12	4,928	1.20	5,280	1.28	5,632
3	1.06	4,664	1.16	5,104	1.24	5,456	1.32	5,808
4	1.10	4,840	1.20	5,280	1.28	5,632	1.37	6,028
5	1.14	5,016	1.24	5,456	1.33	5,852	1.42	6,248
6	1.18	5,192	1.28	5,632	1.38	6,072	1.47	6,468
7	1.22	5,368	1.32	5,808	1.43	6,292	1.52	6,688
8	1.26	5,544	1.37	6,028	1.48	6,512	1.57	6,908
9	1.30	5,720	1.42	6,248	1.53	6,732	1.63	7,172
10	1.35	5,940	1.47	6,468	1.58	6,952	1.69	7,436
11	1.40	6,160	1.52	6,688	1.63	7,172	1.75	7,700
12	1.45	6,380	1.57	6,908	1.69	7,436	1.81	7,964
13	1.50	6,600	1.63	7,172	1.75	7,700	1.87	8,228
14	----	-----	1.69	7,436	1.81	7,964	1.94	8,536
15	----	-----	----	-----	1.88	8,272	2.01	8,844
16	----	-----	----	-----	----	-----	2.08	9,152

over five years. These would be as described in the following paragraphs.

1. Continue the salary schedule adopted for 1963-64 into the year 1964-65. In 1965-66 adopt a minimum salary of $4,400 for beginning B.S. teachers, $4,752 for beginning M.A. teachers, a beginning $5,104 for beginning M.A.+ teachers and $5,456 for beginning doctorate level teachers. In 1965-66 provide increments based on an index increasing at the rate of two and three-quarters percent per year of each step to the next.

2. In 1966-67, step this up to three percent per year; in 1967-68 step this up to three and one-quarter percent at each step; and in 1968-69 step the increment increase up to three and one-half percent at each step.

3. Included also are gradual reductions in the number of steps for B.S. teachers from 16 to 13, a reduction in the number of steps for M.A. teachers from 16 to 14, and for M.A.+ teachers from 16 to 15.

In brief, the transitional scheme would be as shown in Table 21. Whether the plan suggested in Tables 20 and 21 is adopted or not, the Metropolitan Board should plan within at least a five-year period to move toward the end achieved by this proposal, namely, to arrange for a defensible beginning salary -- which will need to be in the neighborhood of $4,400 -- and an opportunity for teachers to advance with adequate training to the point where in a reasonable number of years they may at least double their salary.

The suggestion of Table 20 for the year 1968-69 and the suggested transitional steps in the intervening years beginning with 1965-66 represent a complete index system in which the relative relationship of one step to the next is readily determined and from one preparation level to the next is readily determined. For instance, at any point on the schedule in Table 20, an M.A. teacher is approximately eight percent higher in salary than the B.S. teacher; the M.A.+ teacher 16 percent above the B.S. teacher; and the doctorate teacher 24 percent above the B.S. teacher.

Estimated Cost. The cost of this transitional plan as outlined in Tables 20 and 21 can be estimated in a relative sense by carrying through to that date all teachers now employed in the system or anticipated to be employed in the system in 1964-65, carrying each through on the assumption that there would be no change in preparation level and no turnover. If the schedule for 1963-64 is carried through without change and teachers progress through this schedule, there

TABLE 21

SALARY LIMITS AND NUMBER OF STEPS FOR FIVE-YEAR CONVERSION TO PROGRESSIVE INDEX SALARY STRUCTURE RECOMMENDED BY 1968-69

Preparation level and year	Minimum		Maximum		Number of steps
	Amount	Index	Amount	Index	
B. S. teacher					
1964-65	$4,272	1.00	$6,365	1.49	16
1965-66	4,400	1.00	6,600	1.50	16 a/
1966-67	4,400	1.00	6,600	1.50	15 b/
1967-68	4,400	1.00	6,600	1.50	14 c/
1968-69	4,400	1.00	6,600	1.50	13 d/
M. A. teacher					
1964-65	4,656	1.09	6,750	1.58	16
1965-66	4,752	1.08	7,128	1.62	16 a/
1966-67	4,752	1.08	7,172	1.63	15 b/
1967-68	4,752	1.08	7,216	1.64	14 c/
1968-69	4,752	1.08	7,436	1.69	14 d/
M. A. + teacher					
1964-65	5,041	1.18	7,134	1.67	16
1965-66	5,104	1.16	7,656	1.74	16 a/
1966-67	5,104	1.16	7,700	1.75	15 b/
1967-68	5,104	1.16	8,008	1.82	15 c/
1968-69	5,104	1.16	8,272	1.88	15 d/
Doctorate					
1964-65	5,425	1.27	7,519	1.76	16
1965-66	5,456	1.24	8,184	1.86	16 a/
1966-67	5,456	1.24	8,492	1.93	16 b/
1967-68	5,456	1.24	8,800	2.00	16 c/
1968-69	5,456	1.24	9,152	2.08	16 d/

a/ Increments of 2-3/4 percent of each step to next.

b/ Increments of 3 percent of each step to next.

c/ Increments of 3-1/4 percent of each step to next.

d/ Increments of 3-1/2 percent of each step to next.

would be an increase of 8.8 percent by 1968-69. For the 3,200 teachers the increased cost of the suggested plan over the five-year period, including 1968-69, would be $1,817,000. This would be approximately 3.9 percent per year increase in teachers' salaries. The comparative data are as follows:

Salary cost, adopted schedule for 1963-64	$17,154,752
Salary cost, same teachers, 1963-64 schedule, by 1968-69	$18,668,000
Salary cost by 1968-69, five-step transition	$20,485,000

Administrative Salaries

The Nashville City school system has used a salary index or ratio system for determination of administrative salaries, a practice which is becoming more and more common in larger school systems. The index system, or ratios, which were in use this year, 1962-63, appear as Table 22.

There are several comments to make regarding the system in Table 22. In the first place, this schedule is a considerable advancement over the schedule in the County system and, as with teachers' salaries, should become the basis for future development. On the other hand, it must be recognized that the schedule as adopted was for the City system, the smaller of the two school systems. For the new Metropolitan system, which will be moving toward an enrollment of over 100,000 pupils in a community of over 500,000 population, greater administrative responsibilities are to be expected, so that the scaling of salaries on the administrative level should be somewhat comparable to that expected in the larger school systems in the United States.

The position of Superintendent in the City system would be, in level of responsibility and difficulty, somewhat comparable to the second-ranking administrator in the district, who normally would be called an Assistant Superintendent. Since the Charter calls for the head of the new system to be a Director of Schools, the second-ranking administrators probably should take on a title such as "Associate Superintendent" so that the rank and level of their position is understood throughout the country, despite the fact that the title of the chief administrative officer of the school system will be, as provided in the Charter, Director.

Another observation with regard to Table 22 is that in all cases eight steps are provided in these positions. Some careful study is desirable of how many steps there should be involved in a person's reaching the maximum in an administrative position. The practice in many systems is to limit the steps for administrative positions such as these to four or five. This is a matter which must be determined

TABLE 22

ADMINISTRATIVE SALARY RATIOS
TO MAXIMUM M. A. TEACHERS' SALARIES
IN USE 1962-63 IN NASHVILLE CITY SCHOOLS

Position and months of service	Ratio		Number of steps
	Minimum	Maximum	
Superintendent (12)	2.3165	2.3165	none
Assistant Superintendent (12)	1.69	1.85	8
General Supervisors (12)	1.56	1.72	8
Departmental Directors (12)	1.44	1.52	8
Departmental Supervisors (12)	1.29	1.37	8
Departmental Supervisors (10)	1.10	1.18	8
Elementary Principals			
0 - 300 pupils	1.15	1.23	8
301 - 499 pupils	1.17	1.25	8
500 - 699 pupils	1.19	1.27	8
700 - 899 pupils	1.21	1.29	8
900 -1099 pupils	1.23	1.31	8
1100 - more pupils	1.25	1.33	8
Junior High Principals			
0 - 300 pupils	1.22	1.30	8
301 - 499 pupils	1.24	1.32	8
500 - 699 pupils	1.26	1.34	8
700 - 899 pupils	1.28	1.36	8
900 -1099 pupils	1.30	1.38	8
1100 - more pupils	1.32	1.40	8
Senior High Principals			
0 - 300 pupils	1.375	1.455	8
301 - 499 pupils	1.385	1.465	8
500 - 699 pupils	1.395	1.475	8
700 - 899 pupils	1.405	1.485	8
900 -1099 pupils	1.415	1.495	8
1100 - more pupils	1.425	1.505	8
Assistant Senior High Principals			
500 - 699 pupils	1.147	1.227	8
700 - 899 pupils	1.157	1.237	8
900 -1099 pupils	1.167	1.247	8
1100 - more pupils	1.177	1.257	8

by the Board.

Another element in the situation which has come to the attention of the survey staff is the number of degrees of gradation on size of school for the determination of principals' salaries. It can be argued that more work, more responsibility and more capabilities are required in a large school than in a small one, but to say that there is really any significant way of knowing that a junior high school of, for example, 500 is going to require a less salaried principal than a junior high school of 700 is untenable. Since it has been the policy in the past to make these differentials as to size, it probably will be necessary to continue with such a policy. It could be argued, however, that a principal in any school is as important (and should be receiving, other things being equal, the same salary) as any other.

Such excess work loads as may exist in large schools should be eased by systematically providing assistant principals according to some pattern. For instance, an elementary school as small as 300 would not need an assistant principal. A school of that size would hardly need the attention of a full-time principal. Any school with 300 or fewer pupils probably would have a part-time or teaching principal. A school with between 400 and 800 would have a full-time principal and a half-time assistant principal. Elementary schools of 800 or more would have, under such a plan, a full-time assistant principal. This means that as far as additional work loads and responsibility are concerned, some of it can be offset by providing an adequate number of administrative staff in the schools. In addition to this, throughout the system there should be adequate clerical staff for administrative work in the schools and sufficient guidance and pupil personnel staff to relieve the work load of the principalship.

This being the case, we would urge gradually contracting the salary differentials for principals. At most, two size categories would seem to be sufficient. When it comes to junior and senior high schools, every effort should be made to eliminate, as is suggested in other sections of this report, small and expensive secondary schools. Roughly speaking, a size demarcation point could be established, such as 600 or 700, so that a differential for principal's salary would be paid only for two classes of school as to size -- one for large schools (such as secondary schools over 1,000 or elementary schools over 700) and one for those smaller.

The data in Table 23 suggest the types of index relationships which prevail in other systems of comparable size. The new Metropolitan system is in the process of becoming a school system in the largest class. It will be noted here that superintendents of schools are generally paid on an index basis a maximum salary in the neighborhood of 3.40 times the maximum M.A. degree salary. A study of the information such as that in Table 23 and in Table 22, showing the existing index relationship, has led to the type of salary relationship shown in Table 24. In this table a five-step schedule was assumed, although when the Board

TABLE 23

RELATIONSHIP OF ADMINISTRATIVE MAXIMUM SALARIES TO MAXIMUM SALARIES OF CLASSROOM TEACHERS WITH M. A. DEGREES, 1962-63

Position	Population of district			
	500,000 and over		100,000 - 499,999	
	Mean salary	Ratio*	Mean salary	Ratio
Classroom teacher	$ 7,912	1.00	$ 7,453	1.00
Superintendent	27,450	3.47	19,958	2.68
Assistant superintendent	18,049	2.28	14,666	1.97
Director	14,518	1.83	11,748	1.58
Supervisor	11,596	1.47	10,235	1.37
Counselor	8,840	1.12	8,581	1.15
Senior high principal	12,676	1.60	11,503	1.54
Junior high principal	11,992	1.52	10,584	1.42
Elementary principal	11,457	1.45	9,947	1.33

* Ratio to mean classroom teacher M. A. maximum

Source: Derived from the National Education Association, Research Division. Salary Schedule Maximums for Administrators, 1962-63, School Systems Having 6,000 or More Pupils. Research Report, 1963 - R2. Washington, D.C.: The Association, February 1963.

TABLE 24

ILLUSTRATIVE ADMINISTRATIVE AND SUPERVISORY SALARY RATIOS TO MAXIMUM M. A. TEACHERS' SALARY AT FIVE-STEP PROGRESSION *

Administrative schedule number	Positions to which apply	Ratio to M.A. maximum	
		First step	Fifth step
I	Director of schools	2.96	3.40
II	Associate superintendent	2.27	2.60
III	Assistant superintendent	1.74	2.00
IV	Departmental directors	1.42	1.63
V	Large senior or junior-senior high principal	1.31	1.50
VI	Small senior or junior-senior or large junior high principal	1.22	1.40
VII	Departmental supervisors	1.19	1.36
VIII	Small junior high school or large elementary principal	1.13	1.30
IX	Small elementary principal or assistant secondary school principal	1.09	1.25
X	Assistant departmental supervisors or assistant elementary principal	1.02	1.17

* Steps progress at 3-1/2 percent per year.

finally gets into staffing its new administration it may need to establish some positions at eight steps, as previously.

The progression of the indices in the five steps in Table 24 are the same as for teachers' salaries contemplated in Table 20. That is to say, they progress at the rate of 3-1/2 percent per year. It is proposed that administrative schedules be established and that as people are assigned positions, they be put on the schedule commensurate with the responsibility of their positions. Ten such administrative schedules are shown in Table 24. In this scheme a principal of a small junior high school would be on the same schedule, VIII, as the principal of a large elementary school. We have assumed here reducing the differential between principals' salaries on account of size of school to two categories, as noted previously. Similarly, it will be noted that an assistant elementary school principal would be on schedule X, the same as that for an assistant departmental supervisor. This proposal would mean salary maximums ranging from $8,700 for assistant departmental supervisors and assistant elementary principals to $25,000 or more for the Director of Schools, if the master's level maximum is brought up to $7,436 as it should be.

These are appropriate salary levels for the positions, as discussed elsewhere in this report.

There is one aspect of such a proposal which needs to be carefully watched. There are not now many people in the system with doctorate level training. As soon as possible, the school system should attract in key positions personnel with doctorate level training. As proposed in Table 20, the maximum salary for a teacher on the doctorate level would bear a ratio of 1.23 to the M.A. maximum. All of the administrative schedules in Table 24, except X, have maximums which exceed this. All positions in Table 24, except possibly those on schedule X, are at a level of responsibility demanding doctorate level preparation or better, despite the fact that the ratios are based on the top master's salary.

An upgrading of administrative personnel through employment of new personnel and through in-service training and further preparation of those now on the staff is urgently recommended as an essential step of high priority needed to equip the new system to meet its task. The salary schedule along the lines of that shown in Table 24 is reasonable and is clearly essential to attract the kind of leadership necessary for all of the organization and management work required to keep the new Metropolitan School System on its course.

Retirement Provisions

It is in the best interests of the new Metropolitan school district to maintain as professional a working relationship as possible with its employees. The majority of its employees are professional people, yet they are inclined to look for the same types of benefits associated with their work that employees in industry seek. In industry and government considerable advance has come about over the years in so-called fringe benefits for employees. These benefits include health insurance, income protection during disability, group life insurance, personal time off for self-improvement, and retirement.

The Metropolitan Charter specifies that the Board must establish an actuarially sound pension and retirement plan for teachers employed by it after July 1, 1964 and make provisions for the transfer over to the new system of those either in the County or in the City retirement system who apply for such transfer. The new system may be integrated with the Federal Insurance Contributions Act or other applicable State and Federal legislation.

The Existing City System. The City established a pension system for its teachers in 1939 which possesses, in general, the following features:

Teachers contribute two percent of their salaries for a period of 25 years.

The balance needed in any one year to pay all pensions as they accrue is a mandatory tax levy on the valuation in the City.

A teacher is eligible for a pension at any age upon completion of 30 years of creditable service, or at age 60 with 25 years of service.

A teacher who has 10 years of service and becomes disabled is eligible for a pension with full benefits.

Pension payments are made monthly at the rate of 50 percent of a member's monthly salary at the time of retirement. Since salary at time of employment is on a 10-month basis, the effective rate is 60 percent of annual salary.

No refunds are made to employees who leave the service after having received permanent tenure or Civil Service status. Full refunds are made to teachers without such status upon separation.

Whereas the County system covers all employees of the Davidson County Board whose salaries, wages or compensation are a charge against and payable from school funds except "casual or temporary employees," the City system applies only to teachers, other employees in the system coming under other plans. In the City, secretarial staff, custodians and others who are non-teaching personnel are all classified Civil Service, with a separate pension plan as a part of the City system.

The Existing Davidson County System. Davidson County established a pension system for its employees in 1949, which in general has the following features:

Employees contribute three percent of their salaries for 24 years.

The County matches the contribution made by the employees. A mandatory tax is levied in amounts sufficient to pay the County's contributions and such additional amounts as may be necessary to meet all accrued benefits as they occur.

An employee is eligible for a maximum pension at any age after completion of 30 years of service, or at age 60 with 24 years of service.

At age 60, an employee is entitled to a pension of 30 percent of his highest annual salary during service in the system with 15 years of service, or an additional two percent for each successive year's service (if more than 15 years) up to 24 years of service. Employees with 15 years of service or more who have separated before 60 may continue contributions until retirement age is reached and receive full benefits, or may elect to defer compensation pending re-employment and restoration to full compensation rights.

Employees who are permanently disabled while performing their duties as employees with less than five years of service receive $150 per month under terms as provided in the Workmen's Compensation Law of Tennessee. Employees with five years or more of service are eligible for benefits as follows:

Five to 10 years - 30 percent of salary
10 to 15 years - 35 percent of salary
15 to 20 years - 40 percent of salary
20 to 24 years - 45 percent of salary
24 or more years - 50 percent of salary

An accidental death benefit of $1,000 is paid to dependents on the member's estate in four installments.

The maximum pension for which a member may be eligible is 50 percent of the annual salary. Until recently this was limited to $3,000 per year.

A refund of 75 percent of all contributions is given an employee separated from service for any reason other than delinquency or misconduct.

A refund of all contributions is given an employee who is involuntarily separated from service except for cause of misconduct if he has served for less than five years.

A refund of 85 percent of all contributions made is given an employee who is involuntarily separated from service except for cause or charges of misconduct if he has served for more than five years but less than 15 years.

The State Teacher's Retirement System. Teachers beyond the age which would enable them to qualify for full compensation in either the City plan or the County plan are eligible only for the State of Tennessee Teachers Retirement System. It has two classes of members, those electing participation in the Federal Insurance Contributions Act and those who do not. After 15 years of creditable service, a member is eligible for a deferred benefit, payable at age 60. Benefits are normally payable on attaining age 60 with 30 years of creditable service. There are provisions for disability, return of accumulated contributions, and options for survivor benefits. A minimum of $2.50 per month for each year of service up to 20 years, or $50 per month, is provided. Otherwise, the payment is an actuarial benefit determined approximately as the value of a member's accumulated contributions and contributions matched by the State and the member's life expectancy. Teachers' contributions are three percent for that portion of salary covered by Social Security benefits and five percent otherwise.

The plan is actuarially sound, with desirable provisions which, in amount of benefit, fall considerably short of those in either the existing County or the City system. The State annuity accrues to the interest of teachers in the local retirement funds. When members of local systems retire, the State contribution or State annuity (which would have been payable had the member been a participant in the State system and at such time as he is eligible under the State system) is paid to the local fund when the local benefit is equal to or greater than the State benefit. Any excess of the State payment over the local payment is made directly to the teacher.

Since payments in the two local systems generally exceed the State benefit, the State system in effect is equivalent to a five percent contribution by the State to the local retirement plan. However, non-teaching personnel are not covered in the State system so that in the County plan, for instance, the effective local contribution is greater by five percent than for teachers.

In 1961-62, the State annuities credited the County fund amounted to $75,687 of the $303,796 in pension payments and refunds, or about 25 percent. In 1962-63 the State contributions are estimated to be $131,508 or 21 percent of $615,128 in pension payments and refunds in the City system.

The Problem. Though the two local plans differ in several respects, they both have provisions which, on the one hand, are inequitable and unattractive to some employees and, on the other, too generous for the amounts of contributions made. Unsatisfactory provisions in these plans include:

1. Both are "unfunded" or partially unfunded plans, requiring mandatory tax levies necessary to meet accrued benefits through cash disbursement. An actuarially sound plan is "funded," that is, a cash reserve fund is maintained so that amounts contributed by employer and/or employee to this fund are sufficient at all times to keep it capable of meeting the actuarially anticipated benefit payments. The practice of deferring obligations such as future benefit payments in unknown amounts to future tax revenues in future years is unsound financing at best and can build up to serious proportions. In the City system's pension plan annual payments have increased from $117,771 in 1946-47 to an estimated $695,428 or about six times as much for 1963-64. During the same period the normal contribution rate less than doubled.

   A report by an actuary on the Davidson County plan as of June 30, 1960 showed that funds in hand, future employee contributions and employer contributions at three percent each, plus receipts from the Tennessee Teachers' Retirement system, fell short of meeting payments to members now in retirement and prospective payments to active members at that time by about 42 percent. Total liabilities were $28,700,000. Funds in hand and prospective contributions represented assets of only $16,800,000.[1]

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[1] Geo. B. Buck, Consulting Actuary. Report on an Actuarial Valuation of the Employees' Pension and Insurance Fund of the Davidson County Board of Education. New York, New York. May 26, 1961.

2. There are no withdrawal benefits on separation after three years of service in the City system. A teacher can contribute 29 years and separate before age 60 and receive no refund on his contribution. This is a serious inequity which should be corrected. In the County, after five years of service but less than 15, a teacher separating involuntarily can collect only 85 percent of contributions, thereafter only 75 percent.

3. There are no provisions in either system for benefits to survivors. This is a serious lack.

4. The only death benefit is a minor one provided in the County plan.

5. In the County, employees may continue to contribute and accrue service after separation from service but prior to retirement. It is a much too generous provision to permit employees to participate in the plan for years which are not years that can honestly be classed in any sense as years of service for which credit should be given and receive funds allocated and contributed by the employer.

6. In the County system, members continue contributions after retirement until completion of 24 years of payment. This is inconsistent with the basic purposes of retirement benefits. If in equity, a plan should be less generous to a member on retirement who has had fewer years of service, this should show in the amount of his retirement benefit and should not be revealed by his having to contribute while on a pension.

7. In one system, members make contributions for 24 years, in the other for 25 years. A preferable plan requires participation of members for the entire period of service. There are no inequities in this method as long as the benefits are based on actuarially equivalent payments.

Recommendations. The volume of work and myriad of details necessary to develop and install a new actuarially sound pension and retirement system dictate early decisions on the part of the Board of Education. At the earliest possible moment an actuary should be engaged, some basic policy decisions should be made and a legal counsel should be involved with others in order to determine the legislation which is required to untangle this very unsatisfactory aspect of teaching personnel provisions for the new Metropolitan system.

An early decision needs to be made as to which employees are to be covered in the plan. It is much preferable from the standpoint of maintaining the integrity of an educational operation to have all of the personnel provisions, particularly in a system as large as this one, handled within the framework of the Board of Education. The survey staff does not favor systems of classification, assignment and retirement that are not directly under the control of the Board of Education. The Charter does not charge the Board of Education with responsibility for preparing pension and retirement plans for non-teaching personnel in the school system. Personnel costs to the school system should be within the span of control of the Board of Education. At present, the County retirement system encompasses both teaching and non-teaching personnel. The problem of synchronizing salaries and benefits of non-teaching personnel with those of similarly classified personnel in other departments of the Metropolitan Government and with those of teachers and reconciling the two former methods of covering non-teaching personnel in schools must be studied carefully.

The basic plan should be patterned after the State retirement system and should have incorporated into it the Social Security System. The basic pattern of the State retirement system is sound. The main objective of designing the new retirement system should be to arrive at a plan which is, as nearly as possible, compatible with the two existing systems (as different as they are from one another) to encourage a maximum number of teachers now existing in service to choose a conversion to the new plan.

Features of the plan should follow approximately these guidelines:

1. Amount of normal benefit. This should be an annual, actuarially determined payment equivalent to a benefit to the average teacher of one-half of the highest annual compensation received during service (or average of the highest five years) after 30 years of service, payable at age 60. However, the amount should be actuarially determined.

2. Retirement age. Retirement age should be considered basically as 30 years of service and retirement at age 60. With 30 years of service at age 60, continued employment should be at the option of the Board. With 30 years of service, a member should be eligible for retirement prior to age 60 at an actuarially determined benefit. Payments and benefits should continue as an inducement to continue in service to age 60 and over. However, continued service after 65 for any teacher should be at the option of the Board of Education up to a maximum of age 70.

3. Pre-retirement separation. Separation from service after some substantial number of years of service (such as 20 years) but less than 30, and at age less than 60, should entitle a teacher to have an option of receiving a refund of his contributions with interest or a deferred benefit, actuarially determined and payable at age 60 to the member, if living, or to his survivors or his estate. Members separating under age 60 with fewer than the specified years of service should be entitled to receive employee contributions with interest.

4. Disability retirement. Provide a minimum monthly allowance and after a specified number of creditable service years (such as five years as now in the County plan and 10 years in the City plan and State plan), an actuarially determined amount based upon accumulated contributions and a percentage of the local (and State) contribution which would have been payable at 60, or full retirement benefit if 60 or over.

5. Death and survivors' benefits. In the event of death before retirement, members' survivors or estates should receive payment of the employees' contributions plus interest. At the time of retirement, members should have such options for receiving benefits as the following:

   a. A normal maximum monthly benefit payment without designation of survivor benefits. However, if benefits under this option are less than the accrued contributions with interest, the balance should be payable to a survivor or the member's estate.

   b. A reduced monthly payment to a retired member for life and an actuarially determined payment for life of his designated beneficiary.

   c. A reduced monthly payment to the retired member and an actuarially determined lump sum to a beneficiary or an estate.

6. Financing. It will be necessary to synchronize the financing elements as nearly as possible with the State retirement system, including the Social Security options and the two existing systems. This will require thorough actuarial study. Contributions of members will necessarily exceed the two percent

and three percent now in existence in view of the accrued liabilities of the existing systems and in view of some of the added benefits contemplated. With Social Security, the State annuity and matching by local funds, the new system would probably require over six percent of compensation as employee contributions.

Other provisions for financing which will need detailing include:

a. Combining the system with Social Security to provide level retirement income when retiring at 60 or earlier and adjustments for disability allowances as provided in the State system.

b. A method of financing and courses of financing accrued liabilities of the two existing systems, both for those remaining in the two existing systems and for those transferring into the new one. By whatever method, it should be funded and probably amortized over a period of years to avoid a build-up in later years. A rectification of the defects of the two unsound existing systems must be made initially or the whole plan will be jeopardized.

7. Miscellaneous. Other considerations include: service allowances for employment elsewhere and military service; determination of time and method of transfer of members of existing systems to the new plan (a good time would be July 1, 1965); accidental death or injury benefits; selection of provisions which should appropriately be handled by insurance, such as accident insurance; adjustments necessary for adequate coverage of non-teaching personnel, including those not classified as full-time personnel; provisions protecting the funds, such as ruling as ineligible for retirement payments those retired teachers who are employed elsewhere in the State (since, under these conditions, the State annuity goes to the local system where the teacher is last employed).

The Charter specifies that the pension rights to be provided by the Board of Education plan may include medical insurance and life insurance benefits. It is recommended that the Board consider these in light of a prior requirement of developing basically sound provisions as outlined above for retirement. District contributions to health insurance and life insurance should be considered only with respect to the primary requirement of providing an adequate basic salary and pension program for teachers and a sound system of financing same. Whether or not the school system contributes to such insurance plans, group plans should be provided so teachers can take full advantage of reduced rates.

Sick Leave

The number of days of sick leave in the former City of Nashville system was five days a year cumulative up to a total of 50 days. In Davidson County the sick leave was five days a year cumulative up to a total of 40 days.

It is recommended that the new Metro Board of Education adopt a sick leave policy giving 10 days a year cumulative to 80 days, a practice comparable to the average in large systems. In starting, each employee should receive a 10-day allotment. This allotment will be reduced by any sick leave during the first year of service and if there is any left at the end of the first year, then each month's service adds another day to the cumulative total. Any sick leave charged to an employee over and above his accumulated days should be charged against his monthly payment for the month during which such leave goes beyond his accumulation. Any accumulation outstanding at the termination of employment should be terminated without additional compensation.

Selection and Recruitment of Teachers

In the City, teachers are selected upon the basis of three main points, namely the academic and professional training, the personality and the teaching experience of the individual. All teacher candidates to be considered are to hold a valid bachelor's degree from a standard college or university. They must file an official transcript of their college work and present a picture taken within six months of the date of the application. In addition, they must file for record a State certificate showing they are qualified to teach and, if selected, before entering upon their duties must pass a proper physical examination given by the City Health Officer. In considering teaching experience, experience in Nashville and Davidson County schools is given first consideration.

In the County schools the selection of teachers is based upon somewhat comparable items, but in addition each teacher is required to present acceptable scores on the National Teachers examinations, the commons and one option. In case a teacher is employed and has not taken these examinations, he will be required to take them the next time they are given locally or his contract may become void.

In general there are three classes of teachers. In the first class are those who are appointed and continue teaching over the three-year probationary period and who are reappointed after this period; these are called Civil Service teachers, or teachers on permanent tenure. In the second class are those who are appointed annually by the Board of Education. This varies somewhat in the two systems -- in the City the age at which yearly appointments are made is 41 or over, whereas this age is 46 for the County. These are called temporary teachers. The third group is made up of those who teach day by day; these are called substitute teachers.

As discussed in Chapter XV, it is recommended that a Division of Personnel be established with functions including the recruitment and selection of necessary teachers for the system. During the year 1962-63, the City system employed a total of 168 additions and replacements, while the County employed a total of 447 for the same reasons. Thus a total of 615 new people had to be obtained to staff the two systems. This shows that a lot of time and effort will be required to obtain all the necessary information concerning such a large group of new people.

Clerical and Secretarial Personnel

The provision of secretarial personnel to assist professional staff members in performance of their work is one way of getting more results at lower costs. Davidson County's school system for the year 1962-63 had 19 high school secretaries and one substitute clerk used by other schools. However, most schools in the County do have some clerical help, with salaries paid by the local P.T.A. or some other local community agency. The payroll records show that there are 21 other clerical and secretarial personnel allocated for the central administration staff.

The salary scale in the County starts at $170 per month for a school of an enrollment of 400 or less and goes up to a maximum of $250 per month for a school with an enrollment of more than 800 students. Nine of the 19 school secretaries receive an additional annual State supplement of $250. The salary scale for central administration clerical personnel ranges from a minimum of $200 per month for a classified Clerk I to a maximum of $425 per month for a Chief Secretary II. Seven of the 21 central administration clerical personnel receive, in addition, a State annual supplement of $250.

The City of Nashville school system has at least one clerical person in each school, plus student trainees who spend half a day in clerical and secretarial training. The existing classifications for the City office, excluding trainees, are as follows:

Position	Number
Steno-Clerks III	2
Steno-Clerks II	16
Steno-Clerks I	15
Information Clerk and Telephone Op.	1
Typist-Clerks I	21
Office Assistant	1
Machine Operator	1
Total	57

The City system has an additional clerical title for personnel in 12 schools, called registrar-clerks. These are paid salaries equivalent to beginning teachers. In total, according to the 1962-63 Directory of the Nashville City schools, 91 full-time clerical assistants were employed.

In order to bring the County school system up to a staffing ratio equal to that of the City school system, 117 additional clerical employees would need to be hired. To bring the new Metro School System to a staffing ratio generally acceptable for school systems of similar size, based on 1962-63 enrollments, 150 additional clerical personnel should be employed.

The cost of these additional employees would run between $500,000 and $540,000 for 12-month employment.

Salaries paid to present school secretaries are low compared to those paid by other institutions and businesses. In order to attract and hold new and present employees, salaries and retirement and other fringe benefits should be raised to meet levels now being paid by private enterprise in the Nashville-Davidson County area.

School principals and other administrators should not spend their time typing and filing. The time should be spent on matters related to their training in areas of instruction and supervision.

XII

EVALUATION OF PHYSICAL PLANT

The Nashville-Davidson County Metropolitan School System had, in March 1963, 135 school plants in operation, as shown in Table 25, and additional temporary facilities consisting of the Ford Greene Annex (a four-classroom elementary school formerly abandoned) and 80 portable classrooms. Together, these had a total capacity of 82,099 pupils in grades 1 through 12, as summarized in Table 26.

Although this is but slightly short of the October enrollment total of 82,658, the distribution of pupils among schools is such that many are overcrowded by as much as 20 to 25 percent. One difficulty in planning facilities for future growth of enrollments in the area is that much of the growth will be in areas where schools are already overcrowded and schools with excess space are in areas in which school enrollments are expected to decline.

The above does not include other physical facilities not schools as such. The City system houses its administrative offices in the Hume-Fogg school. The County system has an administrative building located on the Julia Andrews school site. In addition, both systems have separate maintenance shops. Also a part of the facility of the new Metropolitan district is Station WDCN-TV, the educational television station operated jointly by the two districts.

General Information on Existing Facilities

The capacity figures shown in Table 26 were computed for elementary schools on the basis of 30 pupils per classroom and for secondary schools on the same basis for regular interchangeable classrooms, plus varying allowances for special classrooms and a scheduling deduction based upon 85 percent utilization.

In short, the allowances were as follows:

Type of teaching station	Capacity allowance
General classrooms	30
Small classrooms	15
Physical education (double)	80
Physical education (single)	40
Science laboratories	24
Shops	24
Homemaking	24
Art	30
Music	40

TABLE 25

NUMBER OF SCHOOLS IN THE METROPOLITAN SCHOOL SYSTEM OF NASHVILLE AND DAVIDSON COUNTY, TENNESSEE AS OF MARCH 1963, BY TYPE OF SCHOOL

Type	City	County	Total
High schools (grades 9-12, 10-12)	2	3	5
Junior-senior high schools (grades 7-12)	5	11	16
Junior high schools (grades 7-9)	5	-	5
Elementary schools (grades 1-3, 4-8, 1-6, 1-8)	28	73	101
Other types of schools (grades 1-9, 1-12, 7-10, 7-11)	4	4	8
Grand total	44	91	135

TABLE 26

CAPACITY OF SCHOOLS IN THE METROPOLITAN SCHOOL SYSTEM OF NASHVILLE AND DAVIDSON COUNTY AS OF MARCH 1963

Type of school	City	County	Total
High school (grades 9-12, 10-12)	3,819	2,281	6,100
Junior-senior high school (grades 7-12)	3,768	12,506	16,274
Junior high school (grades 7-9)	3,778	none	3,778
Elementary (grades 1-6, 1-8)	19,565[a]	31,013[a]	50,578[a]
Other types of school (grades 1-9, 1-12, 7-10, 7-11)	2,065[b]	3,304[b]	5,369[b]
Grand total	32,995	49,104	82,099

[a] Includes elementary capacity, grades 1-6 of other types of schools (grades 1-9 and 1-12).

[b] Includes secondary grade capacity (grades 7-12) only.

The determination of building capacity is at best arbitrary. There are several methods commonly used. The foregoing was chosen as generally suitable to the situation now existing and to be anticipated in the foreseeable future in the Metro district.

The economics of the area, as discussed elsewhere, are not likely to justify reducing maximum class size below 30, as justifiable as this may be for educational reasons. Even though for this reason a capacity allowance of 30 seems defensible for planning purposes, it is to be emphasized that there are many school districts in the United States in which an average class size of 25 to 27 is general policy. The capacity data used in this analysis are thus to be considered maximum rather than optimum. Moreover, it must be recognized that the capacity of a building depends upon many factors: the classes to be held in it; the nature of the curriculum; the organization of instruction; grouping of pupils for instruction; the number of periods per day, where periods are used in scheduling; and the efficiency of scheduling of classes or groups in spaces.

A list of the 135 schools showing grades housed, dates of construction, size of site, capacity and enrollment as of fall 1962 appears as Appendix A. The geographic distribution of the schools in the City and County systems is shown in the accompanying chart.

Approach of the Building Evaluation

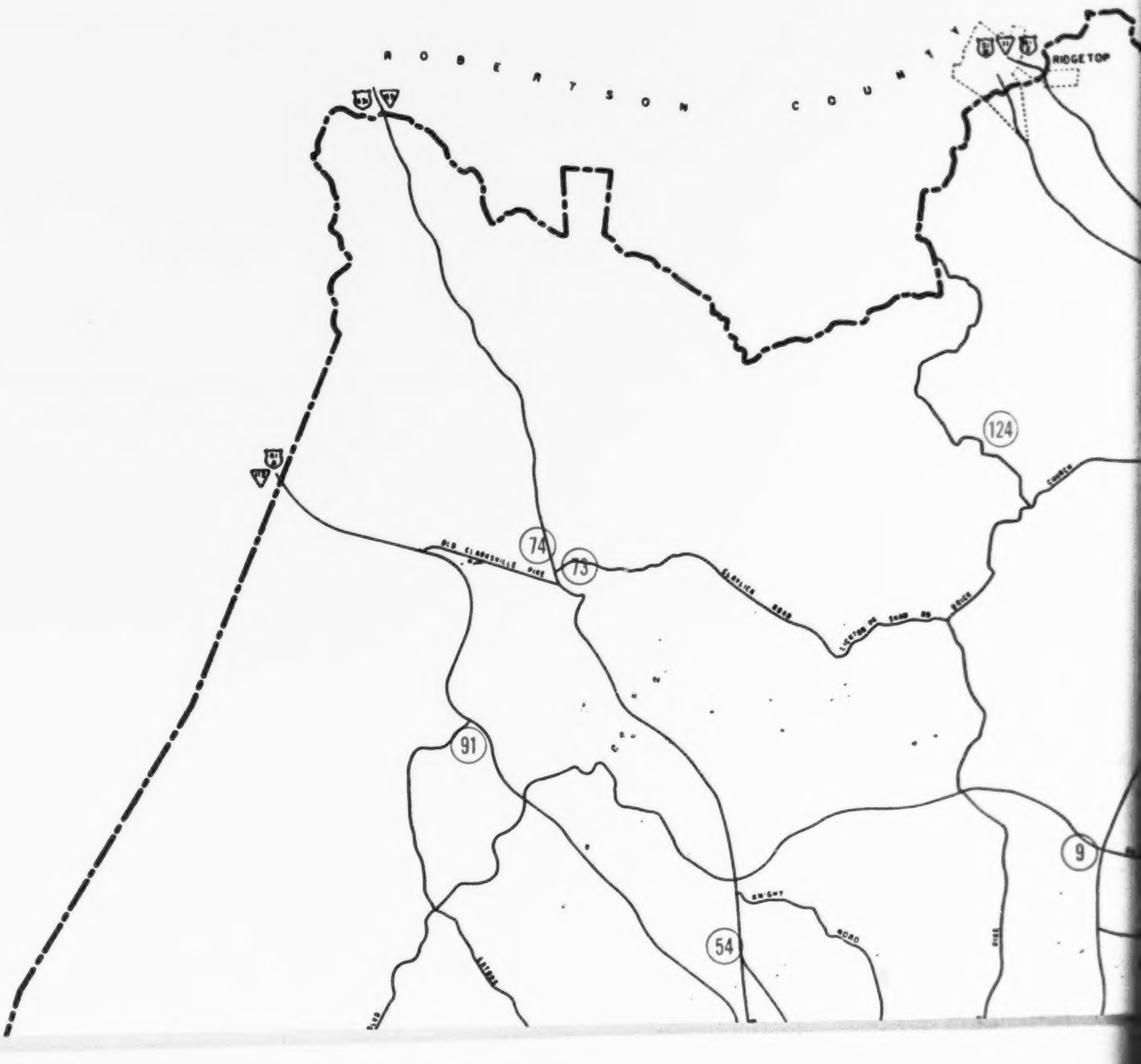
In addition to statistical analysis, field inspections by the survey staff of selected buildings were undertaken as a part of their evaluation.

Schools selected for inspection were of three categories. The first was a random sample of 40 schools used to obtain an over-all evaluation. The second consisted of new buildings and large additions constructed in recent years, to ascertain the quality of recent work. The third comprised all buildings likely to be too obsolete for economical and effective modernization and included both those initially constructed approximately 50 years ago and those to which more than three additions had been made.

A team of four consultants evaluated buildings in all three categories. In addition, 24 buildings considered critical for the above and other reasons were examined at the suggestion of the school administration. Of these last, 16 were inspected in one or more of the three categories described above.

The purposes of such evaluation include not only determining how suitable physical facilities now are, but also what the requirements are in the long-range future and how suitable existing physical plant standards are for future use. The last is by far the most important consideration, since the value of a survey

No.	Name	Grades
1	Allen, Margaret	1 - 6
2	Amqui	1 - 6
3	Andrews, Julia	1 - 6
4	Antioch High	7 - 12
5	Bailey	1 - 9
6	Baxter, Jere	1 - 6
7	Bellevue Elementary	1 - 8
8	Bellevue High	9 - 12
9	Bellshire	1 - 6
10	Berry	1 - 6
11	Binkley, Norman	1 - 6
12	Bordeaux	1 - 6
13	Brick Church	1 - 6
14	Brookmeade	1 - 6
15	Buena Vista	1 - 6
16	Burton	1 - 8
17	Caldwell	1 - 6
18	Cameron	7 - 12
19	Carter - Lawrence	1 - 6
20	Cavert	7 - 9
21	Central High	7 - 12
22	Chadwell	1 - 6
23	Charlotte Park	1 - 6
24	Clemons	1 - 6
25	Cockrill	1 - 6
26	Cohn	7 - 12
27	Cole	1 - 6
28	Cotton	1 - 6
29	Crieve Hall	1 - 6
30	Cumberland High	7 - 12
31	Dalewood	1 - 6
32	Dodson	1 - 6
33	Donelson Elementary	1 - 6
34	Donelson High	7 - 12
35	Dupont Primary	1 - 3
36	Dupont Elementary	4 - 8
37	Dupont High	9 - 12
38	Eakin	1 - 6
39	Early, John	1 - 8
40	East Nashville Jr. High	7 - 9
41	East Nashville Sr. High	10 - 12
42	Elliott	1 - 6
43	Fall	1 - 6
44	Fehr	1 - 6
45	Glencliff Elementary	1 - 6
46	Glencliff High	7 - 12
47	Glendale	1 - 6
48	Glengarry	1 - 6
49	Glenview	1 - 6
50	Goodlettsville Elem.	1 - 6
51	Goodlettsville High	7 - 12
52	Gower	1 - 8
53	Gra - Mar	1 - 6
54	Green, Alex	1 - 6
55	Green, Julia	1 - 8
56	Greene	1 - 6
57	Glenn	1 - 6
58	Hamilton	1 - 6
59	Harpeth Valley	1 - 8
60	Haynes	1 - 12
61	Haywood	1 - 6
62	Head	1 - 6
63	Hermitage	1 - 6
64	Hickman	1 - 6
65	Highland Heights	7 - 9
66	Hill, H. G.	1 - 6
67	Hillsboro High	9 - 12
68	Hillwood High	7 - 11
69	Howard	1 - 12
70	Hume - Fogg	10 - 12
71	Inglewood	1 - 6
72	Jackson, Andrew	1 - 8
73	Joelton Elementary	1 - 6
74	Joelton High	7 - 12
75	Johnson	1 - 6
76	Johnson, Charles	1 - 8
77	Jones	1 - 6
78	Jordonia	1 - 6
79	Joy, Tom	1 - 6
80	King's Lane	1 - 6
81	Kirkpatrick	1 - 6



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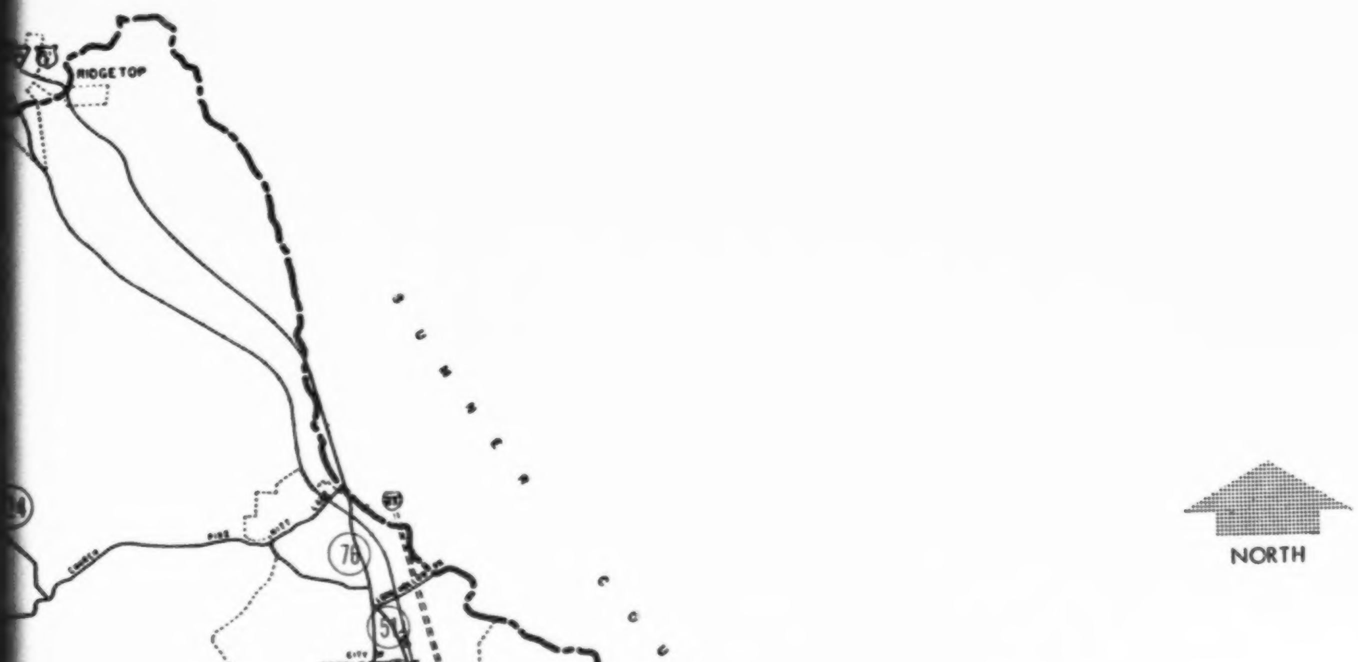
82	Litton, Isaac Jr.-Sr. High	7 - 12
83	Lockeland	1 - 6
84	McCann	1 - 6
85	McGavock	1 - 6
86	McKissack	1 - 6
87	Madison High	7 - 12
88	Maplewood High	7 - 12
89	Meigs	1 - 10
90	Mills, Dan	1 - 6
91	Morny	1 - 6
92	Mt. View	1 - 6
93	Mt. Zeno	1 - 8
94	Murphy	1 - 6
95	Murrell	1 - 6
96	Napier	1 - 6
97	Neely's Bend	1 - 6
98	North Nashville	7 - 12
99	Old Center	1 - 6
100	Overton High	7 -12
101	Park Avenue	1 - 6
102	Parmer	1 - 8
103	Pearl Elementary	1 - 6
104	Pearl High	7 - 12
105	Pennington	1 - 6
106	Priest, Percy	1 - 8
107	Providence	1 - 8
108	Ranson	1 - 6
109	Richland	1 - 6
110	Robertson Academy	1 - 6
111	Rosebank	1 - 6
112	Ross	1 - 6
113	Schwab	1 - 6
114	Stanford	1 - 6
115	Stateland	1 - 8
116	Stokes, Walter	1 - 8
117	Stratford High	7 - 10
118	Stratton	1 - 6
119	Sylvan Park	1 - 6
120	Turner	1 - 6
121	Tusculum	1 - 6
122	Two Rivers High	7 - 10
123	Una	1 - 6
124	Union Hill	1 - 8
125	Vaught, Martha	1 - 6
126	Wade	1 - 6
127	Warner	1 - 6
128	Washington	7 - 9
129	Waverly - Belmont	7 - 9
130	West End	7 - 12
131	Westmeade	1 - 6
132	Wharton	1 - 9
133	Whitsitt	1 - 6
134	Woodbine	1 - 6
135	Woodmont	1 - 8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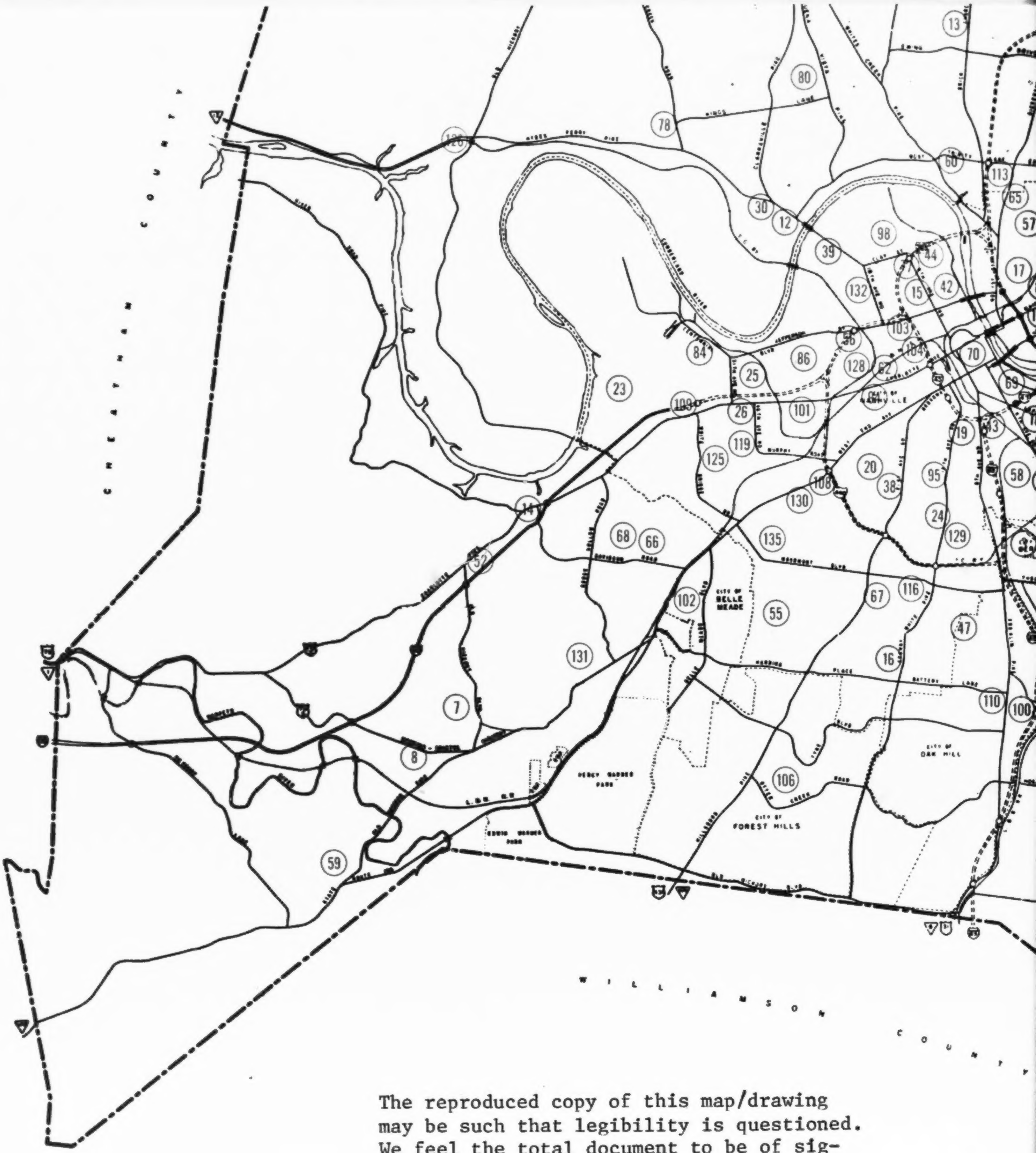
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WILLIAMSON COUNTY
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CITY OF BELLE MEADE
CITY OF OAK HILL
CITY OF FOREST HILLS
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EDWIN WARNER PARK
CUMBERLAND RIVER
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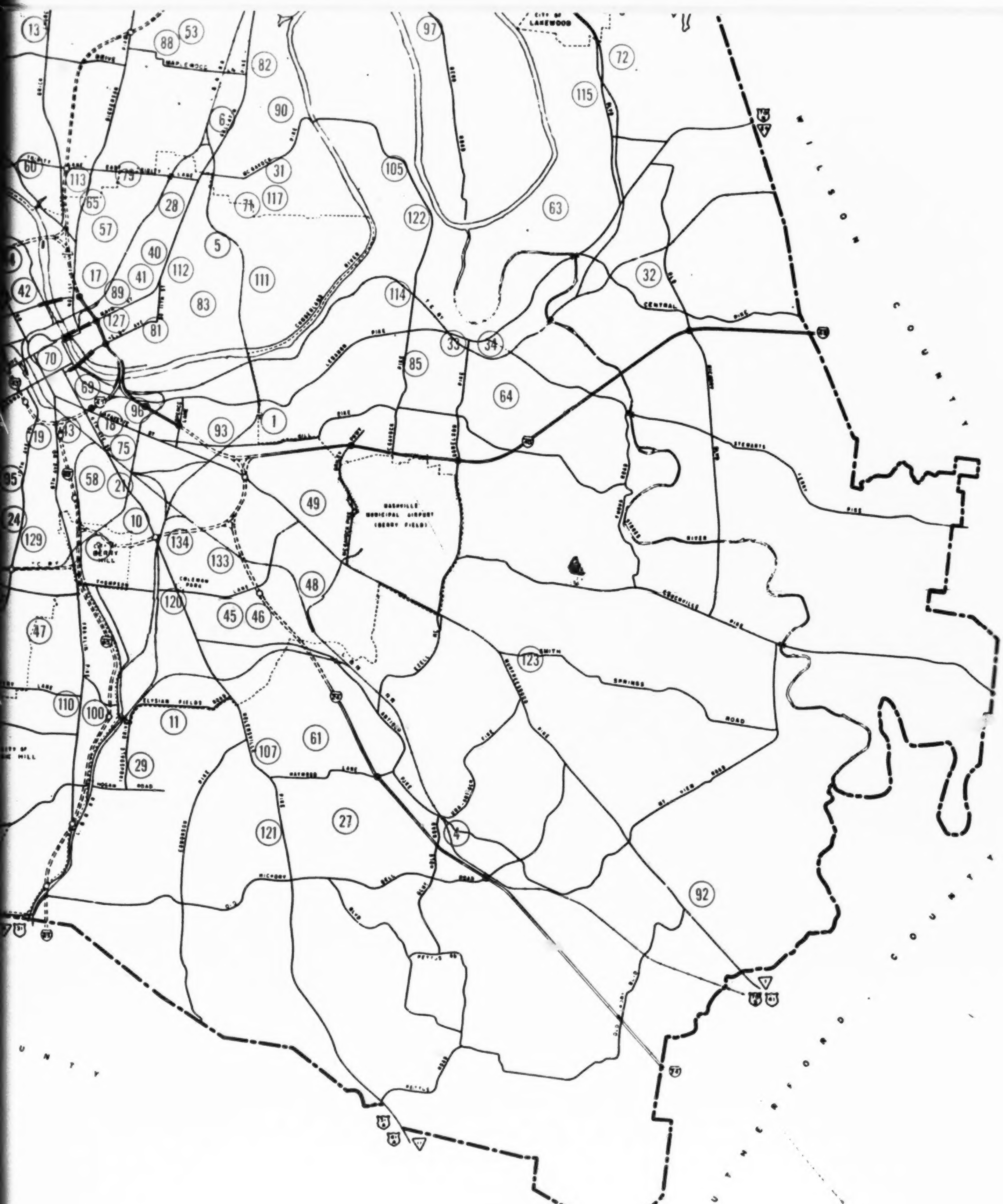
NASHVILLE - DAVIDSON

LOCATION OF EXIST


CITY OF LAKEWOOD
WILSON COUNTY
RUTHERFORD COUNTY
NASHVILLE MUNICIPAL AIRPORT (BERRY FIELD)
CENTRAL PIKE
STEWARTS FERRY PIKE
SMITH SPRINGS ROAD
ELYSIAN FIELDS
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ON COUNTY

STING SCHOOLS

lies in its service as a guide to future action, not in its documentation of the record of the past. This is the more important in the present case, since the vast majority of school buildings in the Metropolitan district were constructed more than 10 years ago.

School buildings of the vintage of 1940 or earlier can no more be expected to meet modern standards than can other products of that period -- home appliances, automobiles, airplanes, family residences and the like. The Hume-Fogg school is a case in point. Several decades ago it was a secondary school structure of which the City of Nashville could justly have been proud. Even today, its basic structure is of high quality. However, school population changes, changes in high school educational programs and advances in efficiency of school building design prevent its receiving high ratings on modern criteria.

Table 27 shows that only 48 of the 139 structures existing or now under construction initiated since 1950. Due to the rapid population growth in the area, largely in the County district, there has been since 1950 a large number of additions to buildings, as shown in column (3) of Table 27. As seen in column (4), this has been necessary to adapt and rehabilitate older buildings and also to add to 43 relatively new buildings constructed since 1951.

A large number of additions is unavoidable in a rapidly changing situation, but the excessive number of such projects is to be avoided. This has been necessary partly because of limited funds for construction. Capital budgets in the County system have been strictly minimum. This has resulted in piecing out of limited funds to make do in the best manner. Construction of schools piecemeal usually is more expensive in the long run.

Individual buildings were evaluated in the survey on the basis of detailed standards covering, briefly, the following:

1. The site: its location, adequacy, physical characteristics, organization and utilization

2. Structure and finishes: the structural system (framing, etc.), exterior and interior surfaces of learning spaces and circulation areas, with consideration of visual and auditory environment, acoustical properties, safety, sanitation, etc.

3. Space relations: the organization of spaces in the over-all plan, zoning of areas requiring separation, the relationship of special areas to their functioning, circulation and access convenience, etc.

4. Lighting and electrical systems: the quality of natural and artificial lighting as related to visual requirements of

TABLE 27

YEAR OF INITIAL CONSTRUCTION, YEARS OF ADDITIONS TO BUILDINGS AND ADDITIONS BY YEAR OF INITIAL CONSTRUCTION, BUILDINGS EXISTING AND UNDER CONSTRUCTION

Year	Number of building projects		
		Additions	
	Initial construction	By year of addition	By year of initial construction
(1)	(2)	(3)	(4)
Before 1901	2	-	2
1901-1910	4	-	4
1911-1920	7	1	10
1921-1930	18	2	40
1931-1940	38	9	73
1941-1950	22	54	22
1951-1960	36	92	43
Since 1960	12	36	-
Total	139	194	194

various tasks, the adequacy of electric power distribution and electrical systems such as time clocks, communication, etc.

5. Mechanical and maintenance: the efficiency and effectiveness of heating and ventilating systems from the standpoint of required thermal environment, suitability of plumbing, facilities for plant operation and conditions conducive to economical upkeep and maintenance

6. General classrooms: their size and shape, appropriateness and adequacy of furnishings and equipment, and general state of environmental conditions for learning and health and safety of inhabitants

7. Special classrooms (such as shops and laboratories): size, shape, physical features, special equipment and furnishings, special environmental requirements

8. Library: location, reading and study facilities, storage for books and other media, special facilities and environmental conditions required

9. Assembly and auditorium spaces: adequacy and suitability for school and other use, physical features and appointments of presentation or stage areas and viewing and listening areas and viewing and listening characteristics

10. Physical education: adequacy of space, special physical features of spaces and their suitability, appointments and environmental conditions

11. School lunch: adequacy for pupils served, quality of kitchen and dining facilities, organization and location of spaces, environmental conditions

12. Administration: adequacy and quality of spaces for general offices, guidance facilities, health facilities, teachers' rooms and storage

Quality Level of Existing Buildings

In the random sample of 40 of the 135 existing buildings, a five-point scale was used for rating three to five sub-items under each of the 12 aspects listed above. A summary of all such ratings appears in Table 28. Although some newer buildings would rate over-all good to superior, fewer than 10 percent of all value judgments by the survey team, covering all items, would be in the superior category. These results lead to the following conclusions:

1. From the standpoint of a broad range of quality considerations, existing school buildings in the Metropolitan district are to be viewed as about two-thirds average or mediocre or worse.

2. Existing school buildings in the Metropolitan district rate only about one-third of all quality counts in the "good" to "superior" categories.

A good case in point is the subject of size of school sites. Tables 29 and 30 show a comparison of elementary and secondary school site sizes with State minimum requirements. All told, there is now a deficiency of 456 acres of land for school sites -- 268 for elementary schools and 188 for secondary schools in the existing 135 buildings. Only a vigorous and imaginative program of planning will alleviate this situation and prevent its development in future construction to be required. Noting that this analysis covers all buildings, old and new, the outcome is not surprising. Site standards, for example, of a generation ago did not allow adequate land for educational use or off-street automobile parking.

Similarly, only in recent years has it been considered desirable to construct schools of safe, fire-resistive materials or to provide modern, sanitary equipment for preparation of school lunches. In this sense, therefore, the efforts of both the City system and the County system are to be commended for the areas in which high quality of school construction has been reached, particularly in recent structures.

However, the many deficiencies now existing in school facilities should be overcome in the long-range planning of the new Metropolitan system. Some of these can be avoided or eliminated in efficient planning of new construction and remodeling projects, but not without large additional capital expenditures.

Areas of Strength and Weakness

A breakdown of Table 28 appears in Table 31, showing the percentage of ratings of the 40 sample school buildings above average for each of the 12 areas. The rankings of the 12 areas in this table reflect the commendable school lunch programs in the two systems, a more or less standard library requirement met in recent buildings and relatively good results in material considerations of lighting and electrical work and structure and finishes. Outside of the library, areas of greatest educational significance rank low. In order to bring the quality levels of

TABLE 28

PERCENT OF ALL RATINGS ON ALL ASPECTS OF SAMPLE OF 40 BUILDINGS BY RATING CATEGORY

Rating	Percent of ratings
Superior	8.6
Good	25.9
Average	30.2
Poor	23.8
Unsatisfactory	11.5
Total	100.0

TABLE 29

COMPARISON OF ACTUAL AND DESIRED SITE ACREAGE, COUNTY AND CITY ELEMENTARY SCHOOLS, DAVIDSON COUNTY, TENNESSEE

Site size in acres	No. of schools	Actual size		Desired size		Acreage short or over
		Total site acreage	Average acreage	Total site acreage required	Average acreage	
	(1)	(2)	(3)	(4)	(5)	(6)
16-20	3	54	18	25	8	+ 29
11-15	15	180	12	132	9	+ 48
6-10	37	299	8	376	10	- 77
1-5	46	146	3	414	9	- 268
Total	101	679	7	947	9	- 268

Based on Tennessee minimum of four acres per school plus one additional acre for each 100 students of building capacity for elementary schools.

TABLE 30

COMPARISON OF ACTUAL AND DESIRED SITE ACREAGE, COUNTY AND CITY JUNIOR AND SENIOR HIGH SCHOOLS, DAVIDSON COUNTY, TENNESSEE

Site size in acres	No. of schools	Actual size		Desired size		Acreage short or over
		Total site acreage	Average acreage	Total site acreage required	Average acreage	
	(1)	(2)	(3)	(4)	(5)	(6)
36-40	1	38	38	20	20	+ 18
31-35	-	-	-	-	-	-
26-30	4	112	28	77	19	+ 35
21-25	5	111	22	117	23	- 6
16-20	4	69	17	72	18	- 3
11-15	6	73	12	120	20	- 47
6-10	10	72	7	183	18	- 111
1-5	4	10	3	84	21	- 74
Total	34	485	14	673	20	- 188

Based on Tennessee minimum standards of eight acres per school plus one additional acre for each 100 students of building capacity for secondary schools.

TABLE 31

PERCENT OF RATINGS ABOVE AVERAGE BY ASPECT OF BUILDING, 40 BUILDINGS

Aspect		Percent of ratings above average	
		Amount	Rank
1.	Site	34.4	5
2.	Structure and finishes	37.5	4
3.	Space relations	32.2	6
4.	Lighting and electrical	38.3	3
5.	Mechanical and maintenance	30.8	10
6.	General classrooms	31.7	8
7.	Special classrooms[1]	31.5	9
8.	Library	45.0	2
9.	Assembly and auditorium [2]	31.8	7
10.	Physical education[3]	29.4	11
11.	School lunch	47.5	1
12.	Administration	22.9	12

---

[1] Such rooms as science rooms, shops, home economic rooms usually found in high schools only. Elementary school buildings generally were not rated on this aspect.

[2] Only buildings with auditoriums included. Seven high schools and eleven elementary schools did not have auditoriums and were not rated.

[3] Only applicable to secondary schools. Elementary schools are generally without indoor physical education facilities.

buildings up to acceptable standards attention in the future must be given to better facilities for:

General classrooms
Special classrooms
Physical education
Assembly and auditorium
Administration

The mechanical and maintenance category rated low for several reasons, namely: excessive heating due to unprotected large glass areas with southern exposures in some schools; poor to unsatisfactory plumbing fixtures in older schools; inadequate custodial facilities, particularly in County schools; and lack of easily maintained materials for wainscots and floors even in newest buildings.

The more important specific observations resulting from this evaluation are included in later sections of this report.

School Cost and Efficiency

In the recent past, school plant planning in Nashville and Davidson County has resulted in low costs per square foot, the average being under $10 for new buildings or additions of all sizes. But cost per square foot can be misleading. Efficiency of the building plan must also be taken into account, since in an inefficient building a large proportion of space not educationally useful can bring the total unit cost down, although the cost of useful space is high.

A typical recent 12-classroom, two-story, City elementary school was built initially in 1958. The initial construction contained 12,772 net square feet of educationally useful area, excluding boiler room, circulation and construction space. The gross square footage (initial) was 31,416 square feet. The ratio of net to gross was thus 41 percent. A well-planned, two-story school should be near 65 percent efficient in plan. Careful educational and architectural planning have produced buildings with 70 percent or more usable space.

A typical recent one-story, 14-classroom County school built in 1960 has net educationally useful area, excluding boiler room, circulation and construction space, of 13,512 square feet. The gross area is 27,969 square feet. The ratio of net to gross is 48 percent. A well-planned, one-story building should be near 70 percent efficient.

Thus, though the cost of both buildings was below $9 per square foot of gross area, in one case 24 percent of the gross, and in the other 22 percent, need not have been built.

A two-story junior-senior high school built in 1962 has a higher efficiency, 58 percent. This is typical of many secondary schools throughout the country, but is still below the desirable 65 percent for a well-planned, two-story secondary school.

It has been administrative and, formerly, Board policy in the County to plan both elementary and secondary schools to meet immediate needs and to be expansible to eventual predetermined capacities. For elementary schools the ultimate maximum has been set at 600 pupils. Ultimate maxima for secondary schools have varied according to type of school and local needs, but the same principle has been followed.

The County administration has recently followed the practice in elementary schools of providing in initial construction the full amount of certain facilities that will be needed for 600 pupils, although initial capacity may be 240 or less. Facilities falling into this category are the library, cafeteria, kitchen, administrative offices and health spaces. The standard required library dimensions have been 24 by 40 feet (960 square feet); for cafeteria seating space, 40 by 60 feet (2,400 square feet); for kitchens, area required by the State for 600 pupils (1,320 square feet). In actual recent buildings there has been some departure from these standards due to design evolution and need for economy. Kitchens, for example, have been substantially smaller. In theory, the intent has been to reduce long-term capital outlay because adding to such spaces, or planning them in advance for expansion, has been considered difficult and excessively expensive. In practice, it it doubtful whether there is an advantage to this approach. Not only is cost per pupil for a 240-pupil school increased by the excessive area of libraries and cafeteria seating space, but to come within a reasonable budget construction quality and sometimes space have had to be sacrificed.

The major observation to be made on construction of school buildings is that the pressure of economy has resulted in construction just short of good quality per dollar. A few dollars more in recent buildings would have permitted just enough better materials, just enough more materials for better environment and just enough more space to yield considerably better facilities. Moreover, a relatively small additional amount spent on school plant planning could yield measurable returns in more educationally usable facilities per dollar of construction cost.

The net result of the foregoing conclusion is that, even though there may be savings in school building cost by an investment in creative talents to plan more efficient buildings, this is offset by the requirements of increasing the amount of space and improving the quality of construction.

Plant Planning Procedures

In the recent past, school plants constructed in both Nashville and

Davidson County have in effect followed standard plans, closely similar in both systems. In the County, a committee composed of administration representatives and selected teachers developed requirements and a standard plan for a typical "self-contained" classroom for grades 1-3 with a toilet in the classroom; another similar committee developed requirements and a standard plan without classroom toilets for grades 4-6; and comparable standards were developed for secondary school spaces following, in general, State requirements. Comparable standards were developed for City schools.

Architectural Services and Plant Planning. In the City, architects were formerly selected by the Finance Committee of the Board of Education and their recommendations were forwarded by the Board to the office of the Mayor, who made the actual selection. In the County, architects were recommended, on the basis of past performance in local school work, by the Supervisor of Plants to the Superintendent of Schools, who in turn made recommendations to the former County Board of Education, which selected the architects.

For City schools the architect was given a mimeographed document prepared by the Director of School Plants from data supplied by department heads and administrative officials. During design stages the architect worked with the Director of School Plants and department heads, and obtained approvals from, first, the Superintendent of Schools and second, the Board of Education. Prior approvals were also necessary from five other public agencies: the State Department of Education, the City Director of Public Works, the City Planning Commission, the City Bureau of Inspection and Permits and the Davidson County Health Department (cafeterias, etc.)

For County schools the procedure during design was approximately the same, the architect working with the Supervisor of Plants, who supplied him with brief mimeographed notes on space requirements, standard plans, etc. In addition to Board approval, the approval of only two other public agencies was necessary: the State Department of Education and the Davidson County Health Department.

The County procedure, with fullest authority vested in the Board of Education, is more desirable.

Educational Requirements. Programs of educational requirements or specifications given architects should be improved in several respects. For elementary schools, the standard classrooms resulting from the described procedures were often satisfactory as self-contained classrooms, but the brief space requirements included no provisions for adaptations of spaces other than standard classrooms which are needed in some of the newer types of elementary education and the work of specialists. For secondary schools, information supplied by the City, well organized and titled "Tentative Educational Specifications," contained concise descriptions of the educational and physical plan desired, capacity, budget, approvals required and space requirements in detail including not only area, equipment and finishes, but in many cases room dimensions as well. For County secondary schools the data were contained in brief documents (two or three typed pages each) consisting of lists of required spaces, reference to State standards and statement of required capacity.

Content of County documents of this type varied widely. One, for a new elementary school, for example, contained cautions as to preventing drippage of pitch from built-up roofs, detailed specifications for sewage disposal facilities, materials specifications for site work, flooring materials, painting and decoration, water service, etc. While some of this may have been necessary because of the lack of a County building department, much was undoubtedly due to unsavory past experience and much is covered by State requirements. The City documents contained many more detailed specifications, often even to specific type of structural system, or trade or brand names.

In many respects, both City and County documents dealt with technical and professional aspects of school construction and design for which architects should be given primary responsibility. A properly qualified architect should not be restricted by specific dimensions of spaces or specific types of materials, since this can prevent the full use of his talents in creating greater efficiency and other improvements in design. The school administration should specify the educational activities anticipated in the school and performance requirements of the several materials and types of equipment, as structure, interior finishes, lighting, heating, ventilation and/or air conditioning, acoustical materials, plumbing fixtures (including numbers of fixtures) and the like. The architect needs to know what kind of environment is to be enclosed and for what purposes, as well as type of school, spaces required and budget.

The school administration may, if desirable, maintain lists of items and details which have proved satisfactory, but these should not be permitted to limit introduction of other items and details and should not form part of the program of educational requirements or specifications.

The volume of construction in Nashville and in the County system has justified and will continue to justify more specialized school administrative staff on school plant planning and development of a systematic organization structure for coordinating, managing and controlling the work of many individuals and agencies involved in the many steps of planning a school building. In Baltimore County, Maryland, which has a similar school construction situation, a procedural document lists 16 decision-making steps for school site selection alone.

Additional Specific Conclusions and Recommendations

Concerning specific features of buildings, the items which follow should be given attention:

1. There is generally not enough educational space in buildings. In both elementary schools and secondary schools, most general classrooms are too small, particularly for classes of 30 and more pupils commonly assigned to them. Although library and study space meet Tennessee State requirements, library space in some schools is below standards generally considered good and should be increased. Although many secondary schools have an oversupply of industrial arts and homemaking facilities for number of class hours of use, too many secondary schools in the area have fewer fully equipped science rooms, music rooms, art rooms and physical education stations than needed in the school program. The data in Table 32 are based upon a comparison of the number of such rooms and weekly student class periods of scheduled teaching.

2. The present temporary, movable classrooms should be torn down at the earliest possible moment and replaced by good commercial-type movable structures where permanent housing is not feasible. The latter should be used wherever attendance of pupils will decline over the next five to 10 years, but where present requirements of enrollment demand additional housing.

3. Design requirements should lead to improvement of all schools with respect to such matters as: avoiding excessively long and unattractive corridors; providing wall bases of a type conducive to maintenance of sanitary conditions; maintaining lighting levels conforming to recent standards of the Illuminating Engineering Society; and providing more suitable heating and ventilating systems, including hot water heating systems as well as air conditioning.

4. A general rehabilitation program for all older buildings should be instituted, with emphasis on wainscots, walls, floor surfacing, non-combustible acoustic treatment, lighting, painting, chalkboards, mechanical and electrical systems, to bring all buildings up to modern standards of educational usefulness, attractiveness, safety and low maintenance cost.

5. The practice in new construction of providing a minimum of 900 square feet per elementary classroom should be continued.

6. Cafeteria seating space and kitchens should be planned in future construction in relation to initial school capacity, with provisions for enlarging kitchens and service lines. Consideration should be given to one school kitchen serving three to four schools, with appropriate methods of transporting hot and cold foods.

TABLE 32

DISTRIBUTION OF METROPOLITAN DISTRICT SECONDARY SCHOOLS WITH REFERENCE TO ADEQUACY OF A NUMBER OF SPECIALIZED TEACHING STATIONS AS DETERMINED BY EXISTING PROGRAMS

Type of teaching station	Number of secondary schools with		
	More stations than needed	Same number as needed	Fewer stations than needed
Science	1	7	26
Industrial arts	13	16	5
Home economics	16	15	2
Music	3	12	19
Art	3	15	16
Physical education	6	6	22

7. Indoor physical education and recreation space should be provided in all elementary schools.

8. Separate auditoriums, although desirable for community use, are not a necessity in elementary schools. Indoor physical education spaces should be designed to serve this purpose.

9. General classrooms for secondary education should be 800 square feet. However, there should be some spaces large enough for large-group instruction and some spaces for seminar and small-group work.

10. Physical education stations for senior high schools (grades 10-12) should include space for a regulation basketball court and spectator seating, with this space divided by a movable barrier into two teaching stations. Junior high schools (grades 7-9) should not emphasize interschool sports and may have smaller basketball courts with minimum or no spectator seating. There should be in all secondary schools sufficient stations for a full program, but not all stations need be planned around basketball courts. Provision for lockers, showers, dressing rooms and other needed spaces should be in proportion to designed capacity of the school, and all such spaces should be designed to maintain proper sanitary conditions at low cost.

11. Large auditoriums are not educational spaces. Auditoriums seating no more than 600-700 should be included in senior high schools (grades 10-12). These should be designed to serve educational purposes. Auditoriums, as such, need not be included in junior high schools (grades 7-9). In all secondary schools, other spaces such as cafeterias or gymnasiums should be used for occasional assembling of groups of 50 or more students.

12. The evaluation of existing buildings has been made in terms of grades and pupils now assigned to them. In none of the schools have provisions been made for kindergartens. In view of the backlog of deficiencies to be made up in existing programs, no recommendation is made for immediate system-wide introduction of kindergartens. Kindergartens have long since been accepted in many school systems as an essential part of public education. Reference is made elsewhere in this report to their need and importance in the Metro system. Without doubt, the people of Metro will in time desire to add this service in some form. For this reason, all elementary school buildings should be planned so that kindergartens can be accommodated when they eventually become a part of the school program.

13. Administrative spaces are inadequate for the supervisory, clerical, guidance, pupil personnel, planning and other administrative functions characteristic of both elementary and secondary schools. Spaces are small; health facilities rate about average; guidance spaces are average to good where they exist;

storage space is lacking in most schools and teachers' work space is limited. The general office space in only one school in 40 was rated superior.

Concerning the planning process and organization for future facilities, the following items should be given consideration:

1. The Metro Government should assume the full costs of school construction, including site development. This will insure (a) close control, now lacking, and responsibility placed on the schools for their share of site development; (b) relieving the individual school principal of duties not connected directly with his major functions; and (c) relieving local individuals and community groups of responsibilities which they should not be asked or expected to assume. If gifts of money, time or materials are spontaneously offered, they should be accepted, but there should be no implied or express pressure for such contributions.

2. Special rooms such as science laboratories, shops, homemaking laboratories and art rooms require different kinds of space and special equipment. They are more costly than general classroom spaces. For this reason, they should be planned only upon the basis of a thorough analysis of the present and likely future educational program for each school and provided in type and number to meet as nearly as possible the needs of the scheduling requirements of the anticipated student population. As noted previously in this report, school populations differ greatly from neighborhood to neighborhood. Facilities should vary accordingly. Standard plans for buildings do not necessarily contribute to economy or suitable educational environment.

3. There should be more exploration in new types of space allocations for both elementary and secondary schools which can provide flexibility for new ways of organizing instruction and greater use of multi-purpose spaces to reduce low utilization, on the one hand, and to accommodate better both teaching and learning on the other. For instance, large music rooms can be designed for large-group lecture and demonstration purposes.

4. A close working relationship should be established between the staffs of the Metropolitan Planning Commission and the Metropolitan Board of Parks and Recreation. Such a cooperative arrangement would benefit both the school system and Metro in general. Objectives should be: to plan for school and park sites to be jointly used and developed as a defensible economy measure; to plan for and start acquisition of sites farther in advance of need, in furtherance of an accepted long-range program; to explore possible savings in capital outlay for schools and other functions of Metro Government; to explore possibilities of improving existing faulty school site conditions, lack of acreage, etc., by developing adjacent land for park purposes.

5. Site layout and design should be as carefully studied, for the entire site, as building design. This requires the services of a competent site planner. Such an individual and the necessary staff may be either: part of the school administration, an outside organization working under the architect of the building and employed by him, or an outside organization engaged directly by the Board and cooperating with the architect. Whichever arrangement is used, no new school project should be undertaken without this type of study. Existing site faults to be alleviated will also require this type of study. The school site is part of the facility and its development is part of the total cost.

6. Low construction cost should be required, but unit cost should not be the sole criterion; low unit cost in relation to building efficiency, the over-all budget, the effect on educational function and long-term maintenance and operating cost, should govern. Such bases for judgment of an architect's work should be clearly stated in advance, either as part of the program of educational requirements or as a supplement thereto. Low cost and economy of construction should not be confused. The goal should be maximum educational usefulness during expected useful life of the structure per dollar of cost (including future operation and maintenance), not minimum possible initial capital outlay. In planning of facilities, economy demands optimum size of school, since small schools, as indicated, are expensive and schools too large may require expensive transportation and undesirable features of mass education. Geographic characteristics of the entire Metro district are such that no arbitrary, single standard can be met -- the size of each single building must depend upon its relationship to other existing and planned facilities in the vicinity, population density, transportation requirements and many other matters. Nevertheless, as far as possible an elementary school size of near 600 is desirable; junior high schools of 700 to approximately 1,200; and senior high schools of 1,200 to 1,800. These size standards cannot be expected to hold rigidly. Also, for purposes of economy, to reduce the amount of expensive facilities required in senior high schools, planning should adhere as closely as possible to the 6-3-3 and eventually the K-6-3-3 plan of organization.

XIII

PROJECTED BUILDING REQUIREMENTS

The purpose of this chapter is to develop a long-range view of construction of educational facilities required for the Metropolitan School System. School buildings are difficult to change once steel and bricks and mortar have been put in place. The decisions involved in placing facilities of the right kind, in the right amounts, in the right places, constitute a very complicated process which must be carefully undertaken to avoid many types of error leading to inefficient utilization of space and inadequate educational facilities in the years ahead.

Buildings constructed now will undoubtedly last 50 or 60 years. Their mid-life will be 30 years hence, in the year 1993. It is imperative, therefore, that as much vision, study and sophisticated planning as possible go into capital budgets.

It is to be observed that, although amounts of money for buildings appear large, spread over a period of time costs of school buildings are a relatively small proportion of the total cost of education.

During the course of the preparation of this report, the Metropolitan Planning Commission was in the process also of preparing a long-term school building plan for the Metropolitan Government. The material which follows and that to become available through the Planning Commission should be used as a backdrop by the new Board of Education and its staff for continuous capital budget planning and school construction administration.

School Construction Planning Areas

As mentioned in Chapter III of this report, enrollment projections on several bases for the new Metropolitan school district were distributed among 22 school construction planning areas. The schools contained in these areas are shown in Table 33.

As an initial step for determining a long-range picture of requirements, tables such as Tables 34, 35 and 36 were prepared on various assumptions related to projected enrollment, capacity of usable existing buildings and buildings which are now under construction.

In the computation of existing capacity some buildings which are

TABLE 33

EXISTING OR PLANNED BUILDINGS
IN SCHOOL CONSTRUCTION PLANNING AREAS

Area		Existing buildings
I	Old Hickory Growth Area	Dupont High, Dupont Primary, Dupont Elementary, Andrew Jackson, Stateland, Hermitage
II	Bluefields-Cloverhill	Donelson High, Donelson Elementary, McGavock (Part), Hickman, Dodson
III	Pennington-Donelson Hills	Two Rivers High, Pennington, Stanford Elementary, McGavock (Part), Margaret Allen (Part)
IV	Southeast Rural (Part)	Mt. View, Una, Antioch High
V	Sevenmile Creek Growth Area	Norman Binkley, Crieve Hall, Providence, Tusculum, Haywood, Cole
VI	Glenbine	Glencliff High, Glencliff Elementary, Turner, Whitsitt, Woodbine, Glenview, Glengarry
VII	Berry Hill-Elm Hill	Margaret Allen (Part), Mt. Zeno, Berry, Hamilton, Julia Andrews, Central High
VIII	East Nashville	East Nashville Sr. High, East Nashville Jr. High, Highland Heights, Cotton, Bailey, Lockeland, Caldwell, Meigs, Kirkpatrick, Glenn, Ross, Warner
IX	Joywood-Inglewood	Isaac Litton Jr. High, Isaac Litton Sr. High, Stratford High, Shwab, Tom Joy, Jere Baxter, Dalewood, Inglewood, Rosebank, Dan Mills
X	Madison Growth Area	Madison High, Neely's Bend, Stratton, Amqui

TABLE 33 (Continued)

Area	Existing buildings
XI Goodlettsville	Goodlettsville High, Goodlettsville Elementary, Charles Johnson, Old Center
XII Maplewood	Maplewood High, Gra-Mar, Chadwell, Brick Church, Bellshire
XIII Northwest	Joelton High, Joelton Elementary, Union Hill, Morny, Alex Green, Jordonia, King's Lane, Wade
XIV White's Creek	Cumberland High, Haynes, Bordeaux
XV North Nashville	John Early, North Nashville, Buena Vista, Jones, Fehr, Wharton
XVI South Nashville	Howard, Hume-Fogg, Cameron, Napier Johnson, Rose Park (under construction), Carter-Lawrence, Murrell, Clemons, Waverly-Belmont, Fall
XVII Hadley Park	Pearl Elementary, Pearl High, Washington, Head, McKissack, Elliott, Murphy, Greene
XVIII West End	Woodmont, Cohn, Park Avenue, Sylvan Park, West End, Ransom, Cavert, Eakin
XIX Greenhills	Hillsboro High, Julia Green, Walter Stokes, Glendale, Burton, Overton High, Robertson Academy, Percy Priest
XX Southwest	Bellevue High, Harpeth Valley
XXI West Mead-Hillwood	Hillwood High, H.G. Hill, Brookmeade, Gower, Bellevue Elementary, Westmeade, Parmer, Martha Vaught
XXII Richland-Centennial	Charlotte Park, Richland, McCann, Cockrill, West Nashville Junior High (under construction)

TABLE 34

PROJECTED ENROLLMENT TO 1972
AND AVAILABLE CAPACITY IN EXISTING BUILDINGS,
GRADES 1 - 6,
BY SCHOOL CONSTRUCTION PLANNING AREAS

	Planning areas	Projected enrollment	Existing capacity	Additional needed
I	Old Hickory Growth	2,800	2,000	800
II	Bluefields-Cloverhill	3,400	1,700	1,700
III	Pennington-Donelson Hills	2,800	1,800	1,000
IV	Southeast Rural (Part)	2,000	600	1,400
V	Sevenmile Creek Growth	3,700	3,000	700
VI	Glenbine	2,900	2,800	100
VII	Berry Hill-Elm Hill	1,000	1,000	-----
VIII	East Nashville	3,500	4,500	(1,000)
IX	Joywood-Inglewood	4,000	4,350	(350)
X	Madison Growth	2,500	1,800	700
XI	Goodlettsville	800	1,000	(200)
XII	Maplewood	2,200	1,700	500
XIII	Northwest	3,900	1,500	2,400
XIV	White's Creek	1,900	1,000	900
XV	North Nashville	2,200	3,000	(800)
XVI	South Nashville	2,100*	3,700	(1,600)
XVII	Hadley Park	1,900*	3,100	(1,200)
XVIII	West End	1,700	2,500	(800)
XIX	Greenhills	2,100	2,500	(400)
XX	Southwest	1,300	240	1,060
XXI	West Meade-Hillwood	2,200	2,550	(350)
XXII	Richland-Centennial	1,500	2,750	(1,250)

* Actual rate of growth greater

TABLE 35

PROJECTED ENROLLMENT TO 1972
AND AVAILABLE CAPACITY IN EXISTING BUILDINGS,
GRADES 7 - 9
BY SCHOOL CONSTRUCTION PLANNING AREAS

	Planning areas	Projected enrollment	Existing capacity	Additional needed
I	Old Hickory Growth	1,300	-----	1,300
II	Bluefields-Cloverhill	1,600	-----	1,600
III	Pennington-Donelson Hills	1,300	-----	1,300
IV	Southeast Rural (Part)	900	-----	900
V	Sevenmile Creek Growth	1,700	500	1,200
VI	Glenbine	1,300	-----	1,300
VII	Berry Hill-Elm Hill	500	-----	500
VIII	East Nashville	1,600	2,200 a/	(600)
IX	Joywood-Inglewood	1,900	1,600 b/	300
X	Madison Growth	1,200	1,200 c/	-----
XI	Goodlettsville	400	1,000 d/	(600)
XII	Maplewood	1,000	-----	1,000
XIII	Northwest	1,800	-----	1,800
XIV	White's Creek	900	1,400 e/	(500)
XV	North Nashville	1,000	700	300
XVI	South Nashville	1,000	1,200	(200)
XVII	Hadley Park	900	1,100	(200)
XVIII	West End	800	1,750 f/	(950)
XIX	Greenhills	1,000	1,000 g/	-----
XX	Southwest	600	-----	600
XXI	West Meade-Hillwood	1,000	1,600 h/	(600)
XXII	Richland-Centennial	700	800	(100)

a/ In Bailey, East Jr. and Highland Heights

b/ Isaac Litton

c/ Madison Jr.-Sr.

d/ Goddlettsville High

e/ Cumberland and part of Haynes

f/ Cavert and Cohn

g/ Overton

h/ Hillwood

TABLE 36

PROJECTED ENROLLMENT TO 1972
AND AVAILABLE CAPACITY IN EXISTING BUILDINGS,
GRADES 10 - 12,
BY SCHOOL CONSTRUCTION PLANNING AREAS

	Planning areas	Projected enrollment	Existing capacity	Additional needed
I	Old Hickory Growth	1,000	700	300
II	Bluefields-Cloverhill	1,200	1,300	(100)
III	Pennington-Donelson Hills	1,000	1,000	-----
IV	Southeast Rural (Part)	700	1,200	(500)
V	Sevenmile Creek Growth	1,300	-----	1,300
VI	Glenbine	1,000	1,300	(300)
VII	Berry Hill-Elm Hill	340	-----	340
VIII	East Nashville	1,200	1,000	200
IX	Joywood-Inglewood	1,400	1,200	200
X	Madsion Growth	900	500	400
XI	Goodlettsville	300	-----	300
XII	Maplewood	800	1,200	(400)
XIII	Northwest	1,300	600	700
XIV	White's Creek	700	-----	700
XV	North Nashville	700	1,000	(300)
XVI	South Nashville	700	2,100	(1,400)
XVII	Hadley Park	700	1,300	(600)
XVIII	West End	600	850	(250)
XIX	Greenhills	700	1,200	(500)
XX	Southwest	400	-----	400
XXI	West Meade-Hillwood	800	-----	800
XXII	Richland-Centennial	500	-----	500

sub-standard and parts of some buildings which are sub-standard were not counted on the assumption that they would be abandoned over the 10-year period. It was assumed that all facilities contemplated in capital budget requests made by the Transitional Board as of April 1963 and buildings already authorized for construction would be available by the end of the planning period. Added capacity for school building projects not in use in 1962-63, including those under construction, authorized for construction, or in the capital budget request of the Transitional Board as of April 1963, includes the following: Margaret Allen, Amqui, Antioch High, Norman Binkley, Bordeaux, Cavert, Charlotte Park, Hickman, Hillwood High, Inglewood, McGavock, McMurray High, Maplewood High, Monticello, Neely's Bend High, Pearl High, Rose Park Junior, Stratford High, West End, West Nashville Junior and Wharton. Some of these are entirely new schools; some are additions.

Sub-Standard Space to be Eliminated

The following schools, or parts of schools, were eliminated for instructional use in the long-range program:

School	Portion to be adandoned
Elliott (1-6)	Entire
Fall (1-6)	Entire
Glenn (1-6)	11 classrooms
Napier (1-6)	10 classrooms
Pearl Elementary (1-6)	Entire
Ross (1-6)	10 classrooms
Ford Greene Annex (1-6)	Entire
Julia Andrews (1-6)	Entire
Stratton (1-6)	2 classrooms
Hume-Fogg (10-12)	Entire
Bellevue High (9-12)	Entire
Central (7-12)	Entire

The capacity of the nine elementary school buildings is 2,820 and the three secondary buildings 2,794.

Elliott. This three-story elementary school was built in 1916 and never added to. When inspected it was rated poor or unsatisfactory on almost all aspects, receiving a good rating only on one item: size of classrooms (all slightly exceeded 800 square feet net). The October, 1962 enrollment slightly exceeded capacity (see Appendix A). The site, 0.9 acres, has no off-street parking or service access to the building. Land not occupied by the building is mostly paved and seriously overcrowded when used for physical education or recreation.

Building construction is of a type which, by modern standards, requires enclosed stairwells for fire safety for a three-story school. However, the building plan is such that to enclose stairwells would be prohibitively costly if achievable. Interior condition of the building is poor, due to faulty maintenance and lack of repairs or replacement of many elements. Fluorescent lighting has been installed in classrooms but classroom furniture, equipment and general environment were rated unsatisfactory. While cleaning up and repainting would somewhat alleviate these conditions, the cost of replacing many items of equipment would be excessive. The coal-fired steam heating system was rated poor.

The school has no space for indoor physical education in bad weather. Administrative spaces are inadequate in quantity and unsatisfactory in quality.

Fall. This is another three-story school having essentially the same characteristics as Elliott, and in addition a greater proportion of the structure is wood framed. Initial construction date is 1898. A large addition was erected in 1926. The site contains 1.3 acres and has a 42 by 84 foot paved court as the only physical recreation area, indoors or out. This school was rated generally lower than Elliott.

Glenn. This elementary school was built in two stages, dating from 1903 and 1949 respectively. The 1903 portion has the same characteristics as the two preceding schools and contains 11 classrooms, administrative space, cafeteria and boiler rooms. The old portion is three stories tall and, although comparatively well maintained, was nevertheless considered to be extremely hazardous in case of fire due to wood framing, unprotected stairwells, wood flooring, etc. The cafeteria was rated unsatisfactory in most respects. Administrative space was inadequate. It is recommended that this portion of the building be razed and replaced.

Napier. This school was initially built in 1898 and doubled in capacity by a 1949 addition. The old portion contains 10 classrooms (eight general, one science, one special education) and a teachers' lounge. It has masonry walls, wood floor and roof framing and is three stories tall. This portion was rated poor or unsatisfactory, as in the case of the preceding schools and for the same reasons. Also, the roof leaks and glass in the old wood sash has been blown in by the wind in the past. Although many aspects of the 1949 portion received poor or unsatisfactory ratings, these conditions could be remedied by renovation and modernization in most cases.

It is recommended that the old portion be razed and replaced, and that in the process the administrative spaces and the library be increased in area. If Napier Park continues in school use, no additional acreage should be needed.

Pearl Elementary. Built in 1917 and added to in 1923, this school is in perhaps the worst condition of any, and should be razed. Three stories tall, the school is a firetrap. It was rated unsatisfactory on most aspects, poor on others, good on none. Its site contains 0.96 acres and is virtually all blacktopped. It has no indoor physical education space; the library reading room has less than 600 square feet; the administrative offices have only 189 square feet; the coal-fired steam heating system was rated unsatisfactory; and the only pupil toilets are in the basement, inadequate in number of fixtures and impossible to maintain in sanitary condition.

Ross. The older portion of this school was built in 1907, a large addition in 1951. The 1907 portion contains all the classrooms (10), two science rooms, a small library and administrative spaces. The old portion, three stories high, is wood framed and has a brick veneer exterior. Floors are wood surfaced, stairs are not enclosed, although by modern fire safety standards they should be, and the entire old portion, much like other old schools described above, would be costly to renovate. It was rated poor or unsatisfactory in all respects. The new portion contains an auditorium-playroom and cafeteria. These were rated average to good. The site has 1.3 acres, of which roughly half is available for physical education and recreation. It is recommended that the entire building be abandoned for school use.

Julia Andrews. Built in 1942 and enlarged in 1953, this school shares a 9.3 acre site with the existing County school administration building. Four former classrooms in Julia Andrews were in 1962-63 County administrative offices. Construction of the building is basically sound, but many items of finish and equipment need repair or replacement due to normal wear and tear as well as minimum initial quality. Construction of a restricted-access divided highway, with an interchange nearby, will reduce the site in the near future and limit accessibility of the school. A more recently built school, Berry, is approximately half a mile away and others are reasonably close. Julia Andrews is to be abandoned for instructional purposes. It should be used temporarily for housing additional administrative personnel.

Stratton. The original Stratton elementary school is a two-classroom, wood-framed building with outdoor toilets, built in 1910. The remainder of the school is a separate, fire-resistive, two-story structure built in 1936 and added to in 1951 and 1954. The old portion, though well maintained and in fairly good repair, is unsatisfactory in many respects and subject to increasingly severe attack by termites. It should be demolished and not replaced, since the 7.3 acre site will be somewhat below requirements, though usable, for the remaining structure. Construction of other schools elsewhere in the area should take care of enrollment needs.

Hume-Fogg. Built well in 1912 and substantially enlarged in 1917, and extending virtually from curb to curb of its downtown Nashville site of 2.0 acres, Hume-Fogg remains entirely sound structurally. It is four stories high and has numerous basement rooms. The part now allocated to instruction has a maximum capacity of 1,071 secondary pupils. However, the October 1962 enrollment of vocational high school students was 714. It is no longer located properly for regular senior high school use. Its layout is such that for vocational purposes its utilization is exceedingly inefficient. Its large 1,500-capacity auditorium is rarely used to capacity. Thus for school use or administrative use the building will have waste space.

The Hume-Fogg school in its location in the main business district is not well situated with respect to potential pupils. Business traffic on adjacent streets is exceedingly heavy. Parking facilities are so limited as to be virtually non-existent or at best makeshift. For all these reasons, it is recommended that Hume-Fogg be abandoned for any school use.

Bellevue High. Built in 1931 and enlarged in 1950 and again in 1956, this secondary school (9-12) is a two-story building. Some basement areas are in use. Construction is wood frame with masonry walls; fire hazards are severe, but stairwells are not enclosed; floors are wood-surfaced in many rooms. Several classrooms have less than 400 square feet each. The single science laboratory is too narrow to permit installation of adequate equipment. Education storage space of all types is almost non-existent. The electrical system is overloaded. Noise problems are severe. Water penetration is periodically a problem. The wood window sash are expensive to maintain. Some ceilings are fiber board, in poor condition, and the plaster in others is falling. Planning for circulation has been poor, so that access to some areas is extremely inconvenient. For these reasons, it is recommended that Bellevue High be razed.

Central High. This two-story junior-senior high (7-12) was built in 1917 and added to in several stages in 1942, 1948, 1950 and 1951. In the past 20 years little has been done to the 1917 building, which has wood framing between masonry walls. The additions are of fire-resistive construction. The school site of 13.8 acres,shared with the Hamilton elementary school, is too small.

The entire building has suffered for lack of repairs, replacements and modernization. There are several places where the roof leaks. Some serious fire hazards exist, although there are fire escapes from the second story. Several classrooms are small. One of the three science laboratories has only 550 square feet, the two others 736 square feet each. Except for one machine shop of 1,539 square feet, all other special rooms are too small to accommodate adequate equipment. School population in the area is expected to increase only slightly, and Central High is now poorly located with respect to pupils' homes.

It is recommended that Central High be abandoned for school use and that secondary pupils be transported to other schools.

Further Assumptions and Limitations

In future planning, it is recommended that the 6-3-3 plan of organization be followed as far as this is possible, taking all factors into account. This is what has been done to form the conclusions on future requirements in this chapter. This recommendation is made primarily on the basis of administrative convenience and economy, not on educational merits of the junior high school idea itself. There are many adaptations of the method of combining grades other than this which are producing superior education. The kind of teaching and the character of activities within the school are far more important than known advantages of 8-4 over 7-5 over 6-6, 5-3-4, 6-3-3 or other grade organizations.

The main advantage of 6-3-3 is that utilization of expensive stadia, gymnasiums, special classrooms and laboratories can be maximized if only grades 10, 11 and 12 have them. The 6-6 plan inevitably calls for more such costly facilities, even though students in grades 7-9 do not need them and probably should be without them.

Statistics for capacity of school buildings must be interpreted flexibly. For instance, a building for 600 in an area of declining population would be a better building with only 500. Class sizes can be reduced. Spare rooms can be adapted to special uses. Throughout computations in this report, requirements have been determined on the conservative or near-minimum side. In computing capacities of buildings at 30 per room, it is to be remembered that in buildings without extravagant space allocations enrollments at 25 pupils per classroom would be better. The pressure of financing the program dictates the practical, conservative estimating used in this report. If funds were known to be readily available, a more generous space allocation for buildings and a less generous allowance for capacity of buildings would have been used.

There is no rigid formula for size of school. Excessively small school buildings cost more per pupil and should be avoided. Excessively large schools generally become overwhelmingly too massive for close contact between teaching staff and pupil. However, where factors of population density, availability of land for school sites and other considerations dictate large schools, there are ways of planning the school program and the facility to fit it so that disadvantages of size can be overcome to a considerable extent. Small schools are often necessary where transportation distances and costs are excessive in isolated neighborhoods.

Recognizing the necessity of varying size of school according to factors of existing buildings, population distribution and the like, the following approximate school-size guides have been used:

Elementary school	-	600
Junior high school	-	700 - 1,200
Senior high school	-	1,200 - 1,800

Neither grade organization nor size-of-school guides as above should be used rigidly and mechanically in planning specific buildings. There are too many variations in the demographic characteristics of this large school system to permit such hard and fast standards. It is a simple mathematical truth that the farther into the future projections are made, the greater the inaccuracies. The purpose of long-range projections, even though it is recognized that many imponderable and unforeseeable circumstances will occur, is to guide in making decisions closer at hand.

Long-Range Requirements to 1972

Since it must be noted that the boundary lines of the planning areas are arbitrary, in the sense that they necessarily followed lines used by the U.S. Census and the Planning Commission and not necessarily school attendance areas, the recommendations contained herein are approximate and do not apply exactly to the areas described and shown on the map elsewhere in this report.

Area 1 - Old Hickory Growth. In the school population to be served approximately by this area, there should be in the next 10 years enough pupils to justify adding to and converting Dupont to a senior high school, grades 10-12. A preferable solution is a new senior high school in this area for 1,000 to 1,400 students and converting Dupont to junior high school use. It will be necessary to build either one new junior high school of approximately 1,300 capacity or two junior high schools of approximately 700. One of these could be a conversion of Dupont. One new elementary school of 600 capacity will be needed, as well as additions to existing elementary schools to handle approximately 200 elementary pupils. Beyond the planning period an additional elementary school may be needed.

Area II - Bluefields - Cloverhill. Two new elementary schools of approximately 650 each are suggested for this area, plus additions of capacity for 400 additional pupils in existing elementary schools. One new junior high school to accommodate 1,200 pupils also should serve, with the conversion of Donelson to a senior high school, grades 10-12, which will accommodate the future population here. Geographic conditions might necessitate a 7-12 school as the solution in this area.

Area III - Pennington - Donelson Hills. Build two new elementary schools in this area, with approximately 400 capacity each. Add as required to the Margaret Allen school. Also build one new junior high school (or two new junior high schools) to provide 1,300 capacity and convert Two Rivers to a senior high school.

Area IV - Southeast Rural (Part). This area needs to be watched. The judgment of some with whom population development has been discussed suggests that growth may be greater than the statistics indicate. The minimum to be anticipated is the construction of two new elementary schools of approximately 500 capacity each and addition of space for 400 pupils to existing elementary schools; the construction of one new junior high school of approximately 1,300 capacity, drawing not only upon this area, but also upon Planning Area II; and the conversion of Antioch to a senior high school serving, as it now does, both areas IV and V.

Area V - Sevenmile Creek Growth. Build one new elementary school of approximately 600 capacity. Add approximately 100 capacity to existing elementary buildings. Build one new junior high school, increase capacity of McMurray and convert to junior high school use. Senior high school students can be handled in Antioch, Glencliff and Overton.

Area VI - Glenbine. There are two possible alternatives to consider here, to be pursued as more information is available on the direction of future development. One of these would be to convert Glencliff High School to a junior high school and build a new senior high school which would serve both areas VI and VII. Another alternative would be to make Glencliff a senior high school and to construct additional junior high school facilities. The alternatives should be chosen on the basis of the future population distribution in the area when census information and land use information are more definite and after careful weighing of the relative costs of the two methods of providing facilities here. The elementary schools are near the expected future enrollment in the area.

Area VII - Berry Hill-Elm Hill. Elementary schools in this area may be expected to handle ultimate elementary school population. Students in grades 7-12 can be served in other areas.

Area VIII - East Nashville. This area may be expected to have a surplus of elementary school facilities and junior high school facilities in terms of buildings now in use. This suggests no new construction, but a conversion and rehabilitation of spaces to accommodate the changing population at various grade levels as this comes about. For example, to use facilities maximally, the Highland Heights Junior High School and East Nashville Senior High School should draw from residences in Planning Area IX. Consideration should be given to the conversion of Bailey to a junior high school and Meigs to a junior high school and converting East Nashville Junior to senior high school use along with East Senior, depending upon the population movements in this area. The central portion of Meigs is wood framed and probably should be eliminated or replaced by the next decade. Highland Heights Junior High is poorly located and eventually should be eliminated. Attendance zones for all schools in this area will undoubtedly spill over into both Planning Areas IX and XIV.

Area IX - Joywood-Inglewood. For reasons of efficiency, it would be desirable to convert one of the junior-senior high schools in this area to a junior high school and make of the other a senior high school. The logical choice, from the standpoint of geographic location, for the junior high school would be the Isaac Litton school, which is less than two miles from the Maplewood High School in Area XII. In any event, the two schools, the Isaac Litton complex and the Stratford school together, should accommodate secondary pupils in grades 7-12 with the attendance of students on this level living near Area VIII at schools there. The decision concerning the assignment of grades to the two secondary schools in this area should be based upon the educational program and convenience in serving the pupils as this program develops. Elementary schools in this area should serve expected future elementary school population through grade 6.

Area X - Madison Growth. Add space for additional pupils to Neely's Bend Elementary School and the new Monticello school. This assumes that some of the elementary pupils in the area can be accommodated by space available in Area XI. The secondary schooling needs to be studied carefully in relationship to Area XII. Madison High is closely associated to elementary schools in such areas as the Chadwell and Gra-Mar zones. Some transitional combinations of 4-year senior high schools and 5-year high schools might be necessary to achieve good programs efficiently. Depending upon population distribution, it might be necessary to make Madison High a 9-12, 4-year senior high school and Neely's Bend High a 7-8 junior high school.

Area XI - Goodlettsville. No increase in capacity is indicated for this area. The Goodlettsville High School probably will need to remain as a 7-12 secondary school.

Area XII - Maplewood. Elementary increases in enrollment can be accommodated by adding space for 300 pupils to existing elementary schools and rezoning to accommodate an additional 200. The secondary program in Area XII needs to be studied carefully in relationship to Area X, with respect to Madison High School and the Neely's Bend secondary school. If the balance between junior high school age population and senior high school age population is heavy, it may be desirable to convert Maplewood High to a junior high school. However, its facilities have been expanded by the provision of shops for industrial arts and vocational work so it probably should be retained as a senior high school. In this event, it would be appropriate to consider retaining Maplewood as a four-year, 9-12 senior high school and building in this area an intermediate school or a 7-8 grade junior high school with capacity of about 700. If pupils on the secondary level can be accommodated in sufficient numbers in adjoining areas, it might not be necessary to construct new secondary facilities in this area.

Area XIII - Northwest. The projections for this area on the basis of assumed use of available land for residential purposes are much higher than indicated by the current rate of growth. How rapidly the area builds up cannot be foretold. If it does build up in terms of the projections, at least one new elementary school at 600 capacity will be required. All existing elementary schools in this area are small, so if possible and if suitably located, additions to these buildings to accommodate as many of the increase in elementary school population as necessary should be planned. Also, Joelton High School is too small, but because of the geographic isolation of the area, it may have to continue to be so. However, if the population distribution is such that it can properly serve the senior high school population, it should be increased to a capacity of 1,200 or so, or approximately doubled in facilities. As the area grows, it should serve as a transitional secondary school, perhaps moving from grades 7-12 to 8-12, to 9-12 over the course of the years. Planning for this area, of course, should be closely related to developments in Areas XI, X, XII and XIV.

Area XIV - White's Creek. The critical school to be watched in this area is Haynes. It now receives students transported from various parts of the County. With the merging of the City and County districts, it undoubtedly would be advisable to reassign the students now transported great distances to nearby secondary schools. In time, much or all of Haynes should be eliminated. It will be needed for a few years to accommodate pupils in grades 7-12. In time a new secondary school will be needed in this area. Cumberland will undoubtedly need to be retained as a 7-12 secondary school. The equivalent of two elementary schools of 600 capacity each would then be required in this area.

Area XV - North Nashville. If projections hold true in this area, it would be desirable to convert Wharton entirely to a secondary school, so that along with North Nashville High School, the secondary population in this area can be accommodated. It may be possible to make one of these a senior high school and one a junior high school. As the area develops, these probably will initially become junior-senior high schools. With this change it will be necessary to build the equivalent of one new elementary school at 600 capacity.

Area XVI - South Nashville. This is a critical area, representing the central business district and the older, densely populated part of the city which is now under study by various departments of Metro. Its future may be expected to change considerably. As anticipated land use in the area indicates, in the long run, population should decline here. However, at present, the rate of growth of school population indicates that by 1972 there would be more than twice as many school children, as projected in terms of available residential units anticipated by the Planning Commission. The situation is one in which, on the one hand, there is continued increase in school enrollments, whereas the long-term objective , on the other hand, indicates that urban renewal and other changes in the area will reduce the number of dwellings and the number of school children. The solution here must be found by continuous study, year to year, and every effort on the one hand to provide suitable facilities for the school children and at the same time avoid at all times the construction of new facilities or the addition to existing facilities without a clear view of the long-term future use. Anticipated future population indicates one solution would require converting Cameron to a 7-9 junior high school, eliminating Howard, making Waverly-Belmont an elementary school and retaining Rose Park as a junior high school. In this or Area XVII a new senior high school should be constructed for the central City.

Area XVII - Hadley Park. This area, too, is a part of the deteriorating central core of the City of Nashville, the future of which is uncertain. The rate of population increase in this area, mostly non-white, would produce -- if continued to 1970 or 1980 -- as many as 8,000 pupils. However, in view of desired future land use a good part of this area would be redeveloped. There would be many fewer dwellings and many fewer pupils. This area has been under study by the school authorities and staff of the Planning Commission. It is quite evident that the proposed interstate highway system passing through this area will result in demolitions and removals of many sub-standard dwellings. The scope of this is hard to anticipate. A rezoning of attendance areas will be necessary year by year and every effort should be made to find temporary or portable facilities in areas which are clearly supporting temporary enrollment loads on facilities. Both in this area and area XVI conditions are presently overcrowded. To avoid construction of expensive buildings that might not be needed many years in advance, it might be desirable to transport some children in nearby facilities where portable or temporary arrangements are not feasible. Pearl High will ultimately need to become a 7-9 junior high school. In time, Washington can be eliminated.

Area XVIII - West End. If projections of the Planning Commission hold true on future population, it may be necessary to make West End a 7-9 junior high school. Cohn may need temporarily to move to 9-12 and maybe to 10-12. Eventually it will need to be replaced. This area is also one in which school population growth is at variance with projected total population on assumptions of urban redevelopment and changes in dwelling units.

Area XIX - Greenhills. Property has been purchased for the construction of a junior high school in this area. If this comes about, it may be possible to convert both Overton and Hillsboro either to 9-12 or 10-12 senior high schools. At present, Hillsboro High is a 9-12 senior high school and Overton High a junior-senior high school, grades 7-12. In any event, the schools in this area serve populations outside of the area, which needs to be taken into account in their future. However, this planning needs to be watched to avoid, as far as possible, an excessive number of senior high schools, particularly if some wind up with small enrollments.

Area XX - Southwest. Bellevue High is a small and sub-standard school and should be scheduled for replacement. It should be replaced only as indications are that enrollments will produce a school of larger size. Additions to the existing elementary school of at least capacity for 100 additional pupils and the equivalent of one new elementary school probably will be required in this area.

Area XXI - West Meade-Hillwood. No additional elementary facilities are indicated here. However, to handle the junior and senior high school population, in this area and parts of adjoining areas, facilities for 1,600 secondary students are needed. Hillwood should serve as a junior-senior high school, but enrollments may exceed its capacity of 1,000.

Area XXII - Richland-Centennial. No additional facilities are indicated for this area.

The foregoing does not include facilities needed by the school system for the vocational-technical, community college center and central office administrative space. These are two highly desirable facilities that should be planned at the earliest possible moment. The administrative center is of utmost importance so that the team of central administrators needed to build the new system can have adequate space for their important work. In the meantime, it will be necessary to continue use of the Hume-Fogg school and improvise space in the Julia Andrews school and the existing County administrative building.

Estimated Construction Costs

Assuming construction costs per square foot only moderately higher than have been experienced in the past in the area, anticipating somewhat higher quality of construction and more efficiency in planning and design over the period between now and 1972, the additional construction of classrooms is estimated to amount to $47,000,000. Remodeling and modernization are estimated to cost an additional $9,600,000. Site acquisition for new buildings is estimated at $1,125,000. Allowing for a vocational-technical and junior college center at $3,500,000 and $1,200,000 for an administrative center, the estimated total cost of these facilities will be $62,425,000.

This construction is over and above that now contemplated and could not be authorized before the year 1964-65. Construction would have to be completed and bonds issued by 1971 in order for the facilities all to be completed. This means that there exists only a seven- or eight-year period for this construction to be completed. This means an average annual capital outlay, therefore, of over $8,000,000.

In view of the fact that there are critical shortages, serious overcrowding and needs for such facilities as the vocational-technical and junior college center and the administrative center, in order to permit a smooth development of the new educational system, large sums are needed in the immediate years ahead for capital improvements. These sums should be justified on the basis of thorough studies of immediate conditions as they relate to long-range plans such as this and the one prepared by the Planning Commission brought up to date.

The foregoing is not beyond the capabilities of the area and is not greatly in excess of the sums which have been contemplated by the two districts combined in recent years. Some of the estimates above, which are admittedly gross, may be offset by properties to be sold on which schools now located are to be abandoned.

Recommendations

What follows supplements specific observations and recommendations in Chapter XII concerning quality of educational facilities in the two school systems which should be taken into account in future school planning.

1. Adequate research staff should be added to the administrative structure of the new system to work with instructional staff, operation and maintenance staff, the Metropolitan Planning Commission and others to provide a continuous review of future requirements of school populations. Special studies in critical areas should be undertaken, including spot school census studies and school population density studies where necessary. School information thus assembled is useful to the Planning Commission and the other Metropolitan agencies and this type of work should be conducted in close cooperation with agencies thus concerned.

2. There should be a full-time, properly qualified, building construction staff in a division separate from the operation and maintenance division. This staff should have engineering background and be freed full-time to work continuously with architects, contractors and other school administrators and to supervise construction and control and schedule construction projects. A construction operation of $8,000,000 a year or more can benefit considerably from a full-time, competent staff. This staff should have responsibility for maintaining complete and up-to-date inventories of available spaces and a complete file of drawings, cost records, educational requirements, specifications and similar information of basic record. It should not be necessary for the Planning Commission to prepare inventories of educational spaces.

3. There should be formally established through Metropolitan Government a site acquisition committee, consisting of appropriate designated staff from the Planning Commission and agencies responsible for public works and recreation, as well as the Board of Education, for purposes of recommending future schools and their locations to the Board of Education. A clearly-defined set of working relationships should govern the work of this committee so that its functions and the responsibility of participating representatives are clear. The Board of Education must be assured that the resources and pertinent considerations of agencies

of Metropolitan Government are fully taken into account by some such formal procedure. However, regardless of such review and approval authority as may be vested by the Mayor or the Council in such agencies as the Planning Commission, responsibility for planning needed facilities, maintaining inventories of spaces and projection of enrollments in neighborhoods and preparation of capital budgets for the school system must rest with the Board of Education. Agencies such as the Planning Commission should be fully utilized in this process, but should not be responsible for location of future school facilities or determination of need for such facilities.

4. In future planning, the construction of parts of schools should be minimized as much as possible. All buildings should be planned for expansibility, but planning should attempt to avoid additions of wings year-by-year. Incomplete buildings are makeshift and provide poor educational environment. Rezoning and temporary transportation in some instances would result in better school housing, less cost and confusion and better-planned, long-range facilities.

5. In future planning, uncertainty must be anticipated. There will continue to be neighborhoods in the community for which decisions about facilities will depend upon unforeseeable circumstances -- with regard to both amounts and kinds of space needed in advance of the time a school population and an educational program are there. Planning for the unknown is better than ignoring the fact that there is uncertainty. Flexibility in planning can be achieved in a number of ways, for example:

a. Have good portable classrooms for rapidly changing areas. Some portable classrooms in some parts of the school district will continue to be needed as they have been needed in the past. This is therefore a more or less permanent situation and justifies investment in quality facilities of this type, not sub-standard facilities as now in existence.

b. Use temporary facilities as a last resort. These are costly, since suitable temporary buildings are not inexpensive and may, over a long period of time, actually cost more.

c. Plan adaptable facilities. For example, many high schools and junior-senior high schools are below requirements for senior high school use, but can be converted to junior high school use. Secondary school buildings may be planned, as in the past, for transitional use from 7-12 to 9-12 to 10-12, etc.

d. Provide temporary convertible facilities. Schools in areas likely to have declining populations due to urban redevelopment and so forth could be temporarily housed in sound and educationally suitable structures designed ultimately for use for light industry, commercial, office, community center, recreation or other purposes. This would be less costly in the long run than temporary schools as such. Temporary use of dwellings in rapidly growing housing developments has been used successfully in some school systems.

XIV

BUSINESS MANAGEMENT

Business administration is not only concerned with safeguarding and accounting public monies in the best interest of all taxpayers, but it pervades all the educational objectives, goals and activities of a school system. Therefore, business administration and other educational operations are inevitably interwoven and interlocked, especially in such areas of the school budget as purchasing of supplies and equipment, maintenance and operation of school buildings and the development of plans and specifications for school buildings. Planning construction of new buildings is discussed elsewhere in this report.

The school business procedures, records and accounting must be set up and maintained not only so that they are understood by various specialists such as accountants, but also so that they are understood by teachers, school staff, the Board of Education and the general public.

Accounting and Financial Reporting

School accounting and financial reporting help determine short- and long-range planning for school systems. Therefore, financial accounting should be designed to serve as a basis for both administrative decisions and control of receipts and expenditures.

Both the City and County school systems use the accounting system set up by the Tennessee State Department of Education. This is an excellent financial accounting and reporting structure. Both systems should therefore be able to combine their accounts with a minimum of modification. The accounts in both systems include accounts receivable, accounts payable, budget control, expenditure distribution and payrolls. The major difference between them lies in the fact that each system has a different accounting machine, which makes for some different reporting practices.

The Nashville City district uses an N.C.R. accounting machine for all posting, checkwriting and payrolls except for internal cafeteria accounts. A similar, smaller N.C.R. machine is used for all cafeteria record keeping.

The Davidson County system uses two Burroughs accounting machines for its financial transactions, with the exception of the cafeteria operations, which are entirely handled by individual local schools.

In the County system there has been some duplication of work and record keeping, since the County government also keeps a separate account of all school financial transactions. In fact, the main account books and records have been kept at the Court House. This practice, however, will not be continued under the new Metro Charter.

In no small measure, the success of the new school system will depend upon the effectiveness of its financial management. The development of a modern, efficient accounting system commensurate with the scope of a $30,000,000 operation must be one of the first projects to be undertaken by the new system. In fact, steps should be initiated during the year 1963-64 to implement the preparation of a consolidated and well-justified 1964-65 school budget.

Since the school system is a part of Metro Government, accounting must conform both to the requirements of school finance practices and to requirements of public administration. A Division of Accounting and Finance to be headed by a Director qualified in modern accounting methods is recommended.

A school system as large as the new Metro system can benefit greatly by establishing a data processing center. Most reports required by the State and other agencies could easily be programmed in a good data processing installation. The State of Tennessee school accounting system is well adapted for machine accounting and data processing. By adequately programming all financial reports, many manual operations can be minimized and requests for information can easily be filled. The new system could well benefit from material developed on data processing by the Memphis, Tennessee school system. This district has programmed its entire business operation for data processing.

In developing its accounting operation the Metro School System should take into consideration the following:

- Encumbrance reporting as set up in the Accounting Manual for Tennessee Public School Systems.

- An inventory of property to be taken at least once a year and kept in subsidiary records.

- Provision for budgetary control for all receipts and expenditures.

- Monthly financial statements to the Board of Education, and to each Division or Department of the school system, detailed enough to show major category expenditures, encumbrances and balances, among other budgetary information.

- Major category accounts to reflect (among other functions) costs for Elementary, Junior High and High School classifications.

- A general financial statement and report, prepared yearly, to show the fiscal conditions of all budgetary accounts, combined and redistributed in various ways to permit extensive analysis.

- A periodic audit by an independent accounting agency.

- Sufficient flexibility to permit cost accounting, trend studies, projections of costs and analyses of expenditures by various functions and objects.

Purchasing and Supply Management

Detailed policies and procedures must be set up to control the large operation in the new Metro School System. The new Metro Charter specifies that the Board of Education establish procedures, rules and regulations "concerning purchasing, including the establishment and enforcement of standard specifications for all supplies, materials and equipment..." needed to operate the school system. The Charter specifically states that competitive bids are to be obtained for expenditures of $1,000 or more. The regulations are in keeping with sound fiscal governmental operation.

Present Practices. The two school systems now procure their supplies in different, yet similar ways. The Nashville City district has standard lists of items and equipment which are requisitioned from the teacher to the principal, to the department heads, who write the specifications, to the Assistant Superintendent, who checks all specifications and sends them out for bid. When bids are received, the various department heads (with the Assistant Superintendent's approval) recommend to the Board of Education items to be purchased. A similar operation is followed by the Director of Plant in procuring maintenance and operation supplies and equipment. If an item requisitioned is less than $100, the Assistant Superintendent obtains three prices from vendors and awards the items to the vendor quoting the lowest price as specified.

The Davidson County district has followed a similar pattern, except that all purchases and bids are received and awarded by the County purchasing agent, who usually recommends awards as proposed by the Assistant Superintendent of Schools and the various school supervisors.

Recommendations. The following considerations should be taken into account in establishing business management operations for the new Metro School System:

- A Division of Purchasing and Supply should be established under the immediate supervision of the Associate Superintendent, Business Affairs, and with a Director serving as purchasing agent for the school system.

- Standard supply and equipment lists should be prepared and kept up by methods which will assure acceptable standards of quality.
- Specifications for bid should be written in detail, or a manufacturer's number should be listed as a minimum acceptable standard.
- A list of due dates for all requisitions should be made to allow for off-season buying.
- A financial inventory record should be kept to account for each school department's budgetary allotments and expenditures so that administrators can be assisted in their financial management and so that it can readily be determined that supplies and equipment are being purchased within policy and budget limitations.
- Supply management control should be implemented in order to have a better basis on which to purchase the following year's supplies.
- Written procedures should be established for all purchases and supply management. These would include explanations as to how a requisition is initiated and used.
- The Associate Superintendent, Business Affairs, should be delegated the responsibility of awarding bids under $1,000.
- Payment for supplies should be made upon receipt of goods. This builds good will with vendors and advantage can be taken of early-payment discounts.
- A testing laboratory should be set up to test the quality of items submitted by bidders.
- A periodic inspection of schools, storerooms and classrooms should be made to determine additional needs and to assist personnel in using new equipment and supplies.
- Purchases should be made during the whole year, to take

advantage of market buying and to allow the purchasing department to spread its workload over a 12-month period.

- Plans should be developed for central warehousing. The warehouse should be located near a railroad, to take advantage of car load buying, and have ample provision for truck loading and unloading.
- Provisions for cold storage should be set up to handle perishable items.
- A running inventory of all items should be kept by means of modern electronic data processing equipment.

The purchasing and supply management program should assure quality, economy, reliability and service for all items procured. The primary goal of the program should be in terms of the educational service it will afford the children of the school system and the manner in which tools and equipment will enhance the efficiency of the educational process.

School Insurance

At present both Nashville City and Davidson County have adequate insurance for buildings and their contents.

Existing Practice. The City district has a three-year policy schedule of fire insurance based on 100 percent coverage. Most of the policies are written with stock companies. The question as to which agent will receive a new policy has in the past been determined by the Board of Education, with some guidance from the Mayor's office. The City district has approximately 250 different policies. In the case of claims under $2,000, the General Adjustment Bureau handles adjustment. Any claims over this amount could mean that the school system would receive checks from 50 or more policy writers. All school employees are covered by a blanket bond in the amount of $2,500 and the Treasurer is covered by a $10,000 surety bond.

The Davidson County insurance coverage is handled by an insurance consultant employed by the Quarterly Court. The school system reports new equipment and buildings to the consultant. The school system has fire insurance policies on buildings based on 90 percent co-insurance and written for a five-year period. Records of insurance are kept by the County government and copies are kept by the school business department.

Recommendations. Consideration by the Metro Board of Education should be given to the following points:

- All policies should be written for a five-year period to obtain the lowest possible rates.

- A register should be made up for both the City and the County districts showing the name of the insuring company, agent, policy number, amount of insurance, type, rate per thousand, amount of premium, term, dates of coverage and expiration dates.

- An appraisal of buildings and equipment should be made by a competent and qualified appraisal company. This appraisal should be kept up to date so that factual information will be readily available to support possible claims.

- The Board of Education must set policy in determining desired protection and methods of allocating insurance policies. Thought should be given to bidding insurance policies.

- One person should be in charge of all insurance, among other responsibilities, with major duties to see that policies are kept up to date and that insurance is written according to school Board policy.

- All new buildings should be reviewed by an underwriter in determining lowest insurance rates.

- Ample surety coverage should be given (under a blanket bond) to all employees who deal with financial responsibilities of the school system.

- In selecting insurance companies, consideration should be given to policy rating, net resources of a company, reputation and claim services, for either stock or mutual companies.

- A school system as large as Metro should consider the possibilities of a self-insurance program. Either an insurance reserve plan or a partial insurance plan could have sound value to the Metro district. This type of plan has saved many large school districts large sums of money over a period of years.

Plant Operation

Plant operation refers to those day-to-day services required to keep schools open and usable for their intended educational purposes. These services include daily housekeeping, operation of utilities, care of grounds, minor adjustments and repairs and other services that are essential for safety, sanitary conditions and comfort of those who occupy the school facilities. The maintenance and operational program has considerable effect upon the physical useful life of a school plant. It is a good financial investment to keep school plants neat, clean, sanitary and in top operating condition .

As of 1962-63 the Nashville City system was spending about $28 per pupil for operation of plant and the Davidson County system about $20 per pupil. This averages about the same as schools in the Southeast United States, but considerably less than the national average for large city systems. This is confirmed by statistical computations based on 1962-63 budget figures and use of the Cost of Education Index published in School Management in January, 1963.

In view of the generally unsuitable condition of the Davidson County buildings, not only from the standpoint of appearance, but also from the standpoint of desirable physical environment for learning, and in view of the fact that the Nashville City system provides custodial service meeting acceptable standards, it is recommended that the new Metro district develop a program of bringing operation of plant up to the standards already existing in the Nashville City district.

Although there may be some economies as the plant operation managements of the two systems are completely merged, and although economies may be expected from continually developing plant operation programs (in-service training, the introduction of new materials, equipment and methods to reduce labor costs, etc.), the consultants do not foresee justification for a reduction in total expenditure under the level now experienced in the City of Nashville. Observations which follow support this conclusion.

Present Practices. Generally, though somewhat under-staffed, the Nashville district's plant operation is managed and operated quite well and its school buildings, with minor exceptions, are clean, sanitary and conducive to a good learning situation. The City system has this year added to its staff a Supervisor of Custodians who makes routine checks on each building each week. This has evidently been effective in raising the standards of cleanliness within school buildings.

The practice meets generally accepted standards of management of plant operation. The formula used for custodial staffing of school buildings is a good "factoring formula" recommended by many Federal, State and professional agencies. In brief, this formula allows for each school one custodian (or fraction thereof) for each 1,225 pupils enrolled, plus one for each 10 acres of ground, plus one for each 40 teachers, plus one for each 55 classrooms and one for each 75,000 square feet of floor area. This level of service should be continued and extended throughout the new Metropolitan system including particularly older buildings and those with coal furnaces.

The Nashville district now has the following custodial staff:

9	Senior High School Custodians
40	School Custodians I
7	Firemen
65	Custodial Workers II
7	Custodial Workers II, part-time extras
29	Maids
5	Maids, part-time
156	Total, including part-time as one-half

The equipment and supplies being used in the City are generally adequate and of good quality, except that more floor scrubbing and wet-dry vacuum cleaner machines could be used to good advantage.

The County district plant operation differs markedly from that of the City district. The local school principal is responsible for assigning duties and work loads to the school custodian. There seems to be little or no supervision from the County central administrative staff. This is understandable, since the central administration itself is under-staffed. The local school plants, with varied exceptions, are poorly kept, poorly cleaned and a handicap for the educational program. This problem is mainly due to a very unfavorable custodial-employee-plant ratio. A sample study of custodial service in County schools indicates that there would need to be about double the number of custodial employees in the County to come up to the City district standards.

For 91 schools in the County there are only 129 school custodians. They are assigned work loads which by acceptable standards are most unreasonable. Individual work loads of 40,000 to 70,000 square feet of cleaning, plus care of coal furnaces, are not uncommon. In order to do a minimum of cleaning, these custodians work from 10 to 15 hours a day plus Saturdays and Sundays. Many use their families to assist in daily housekeeping of the school buildings. This is evident in Table 37, which is based on reports from 107 County school custodians. Daily work load varies from nine to 15 hours; the average is 11.5 hours worked. In addition, it should be noted that no extra compensation is given for overtime work, Saturday or Sunday work, or for assistance by the custodian's family.

It is to be noted that some custodians in the County receive housing in school grounds, so that salaries in the County as shown in budget data do not indicate the full salary equivalent. Nevertheless, custodian salaries in the County -- even considering this -- are low. This, combined with the fact that there are too few of these employees, explains the magnitude of the deficiency in County

TABLE 37

AVERAGE DAILY HOURS WORKED BY DAVIDSON COUNTY SCHOOL CUSTODIANS

MARCH 1963

Hours worked [1]	Number of custodians
9	1
10	23
11	33
12	32
13	13
14	4
15	1
TOTAL	107

[1] In addition, 68 custodians worked on Saturdays and 47 on Sundays out of the 107 respondents. Thirty-five custodians responded yes to the question: "Do you have family help?"

custodial services.

The survey team found in many County schools toilet rooms and dressing rooms reeking with bad odor, unswept floors, undusted classrooms, unsightly and cluttered yards and many other evidences of poor housekeeping, unsanitary conditions and undesirable environment for learning. Custodial equipment and supplies are barely adequate in most schools visited and custodial storage is generally lacking.

Recommendations. In order to raise the standards of school plant operation and to allow for a smooth transition to the Metro system, the following recommendations are made:

- The school plant operation programs of the two former systems should be consolidated under one central administration at the earliest possible date, under the supervision and management of a competent head, to assure maintaining a single plant operation standard throughout the Metro system.

- A program should be developed for working as rapidly as possible toward adequate staffing of the plant operation program for all schools according to the former City school formula or any other acceptable standard.

- Salaries of operational employees should be equalized for the City and County and maintained at a level which will attract men of good mechanical ability.

- An intensive and comprehensive in-service training for all custodial personnel should be established on a system-wide basis. School custodians should be trained to handle minor maintenance problems among their other duties (such as replacement of windows and lights).

- Approved procedures for efficient management of plant operation should be instituted, including the provision of written work schedules for all school custodians with a detailed list of daily, weekly, monthly and yearly operational requirements, plus equally divided work loads among the various employees.

- Provision should be made for a head custodian in each school building to be responsible for the operation of the plant and maintaining high standards of cleanliness.

- Provision should be made for adequate supervision of all school plants by supervising custodians and other central office administrators.

- Adequate supplies and cleaning equipment of high quality should be provided.

- A manual should be prepared describing policies, standards of operation, duties and pertinent information as related to a particular building for each custodian.

Plant Maintenance

The types of building maintenance required are generally classified into the following three categories:

1. A long-range preventative program which includes renovation, remodeling and rehabilitation -- e.g., a district painting program, replacement of flooring and replacement of boilers, among other major projects.

2. Annual safety and preventative program which includes such items as annual boiler cleaning and inspection, replacement of venetian blinds and shades, patching of roads, etc.

3. An emergency or unanticipated maintenance program which is for the purpose of taking care of repairs needing immediate attention, such as a water break, leaking roof, repair of windows, etc.

The problem of plant maintenance begins as soon as the Board of Education approves plans for a new building.

There are several rules of thumb which can be used in budgeting sufficient money for the maintenance program. One generally accepted standard is that five percent of the total current expenditure budget should be earmarked for maintenance. A second way of arriving at an estimated maintenance expenditure is that one to two percent of current replacement costs of buildings should be put in the maintenance budget. It is difficult to determine generally the exact figure to budget for maintenance. However, a close approximation can be given by careful inspection of all buildings plus a study of past experience of major maintenance costs, translated into long-range and annual budget figures. Viewed from various points of vantage, it is the judgment of the survey staff that maintenance services of the two systems combined fall short of acceptable criteria, largely because of insufficient funds. In fact, the County system is really spending still less than financial reports show, since approximately 10 employees are spending a major share of their time making new furniture.

The consultants found that many school buildings need such major repairs as complete roof renovation, planting of site and grounds, grading and blacktopping, replacement of foundations due to termite conditions and major restorations.

Existing Practices. According to the City school budget, there are 33 maintenance employees who work as electricians, carpenters, plumbers, painters, heating engineers, pipefitters, etc. Although major rehabilitation and renovation in the City is done by private contractors, the maintenance employees do an excellent job of upkeep in the schools.

Some of the types of equipment for which repair and maintenance work are performed by the City staff include: projectors, radios, public address systems, all stokers, motors, pumps, clock systems, lawnmowers, furniture, glass and fluorescent fixtures. Minor remodeling and painting are also done. The men employed to do maintenance work are well qualified and show a responsibility for their work. Excellent records for all jobs are kept showing type of work completed, work time and project description. The maintenance shop has adequate tools and equipment to handle most required jobs. The policy of the City district to have major maintenance work done by private contractors seems to work quite satisfactorily.

Improvements in the City maintenance work would result from: keeping a cost inventory of each school; recording on a large chart the whereabouts of all maintenance employees so that in emergencies they can be located quickly; and inspections by the maintenance supervisor and the school principal of maintenance conditions each year.

In Davidson County, the supervisor of maintenance is responsible for 88 employees (some of whom are temporary) who maintain 91 school plants and 35 vehicles and make a major portion of school furniture, among other tasks. During the summer months more employees are added to help paint the school buildings. The County has 14 carpenters, eight plumbers, six electricians and 10 painters, plus roofers, block layers, plasterers, glaziers, mechanics and laborers.

The maintenance staff does all of the minor repairing of school buildings, plus some major rehabilitation. A good share of the summer work for these employees includes the moving and erecting of portable buildings, repairing and cleaning of heating plants, repairing of plumbing, etc.

There is no planned inspection of buildings in determining maintenance work required for the ensuing year. However, informal checks are made by the supervisor of maintenance.

In general, the County Maintenance Department is run quite efficiently. However, more efficient operation is possible, particularly with reference to the following:

- The making of furniture is an expensive arrangement for the quality of product. A study should be made to determine the desirability of continuing this work.

- The arrangement whereby all employees punch a time card in the central maintenance shop means as many as two hours a day lost due to travel time for employees.

- The whereabouts during the day of employees are often not known in the central office and not readily determined.

- More supervision is necessary to assure quality of work.

- Many of the maintenance men are well-qualified in their particular trade. However, there are too many unskilled and untrained maintenance employees on the payroll. The situation should be remedied.

Recommendations. The following observations of the survey staff should be helpful in setting the course of the maintenance program of the new Metro School System.

- A major difficulty in attracting qualified maintenance employees is matching the competitive pay scales of private industry. A maintenance program is only as good as its employees. Therefore, the Board of Education should raise the wage scale to make possible the hiring of capable and qualified personnel. The organization of school plant maintenance should be under a Director of Operation and Maintenance, with one person in charge of all maintenance and one in charge of all operations.

- The ratio of supervision to maintenance employees depends on the various functions of trades. A rule of thumb which can be used is as follows:

5 - 8	Supervisors report to one director
5 - 10	Craftsmen report to one foreman

10 - 15	Semi-skilled craftsmen report to one foreman
10 - 20	Laborers report to one work foreman

It should be noted that in many situations the foreman might also be the master craftsman and would do his share of work.

- The labor market being what it is in Davidson County, it would seem feasible and economical for the Board of Education to adopt a policy of having a major share of all the maintenance work performed by school system employees. This would mean employing and staffing in areas of painting, masonry, plumbing, pipefitting, electricity, carpentry, heating and ventilation, glazing, landscaping and ground work, general mechanical work and others as needed.

- The maintenance shop should be centrally located, with the essential equipment for performing maintenance service and with several smaller shops located in strategic geographic areas. With adequate supervision, it should not be necessary for employees to come each day to a central shop. Instead, they could receive a weekly work load and report to a place of assignment, with the foremen being responsible for seeing that adequate tools and materials are available and that a time schedule is kept.

- In programming maintenance on a long-range basis yearly, periodical and emergency requests should be considered. Each school should be inspected by the supervisor of maintenance, the school principal and other personnel and estimated costs should be listed with priority ratings assigned to each need. This will allow periodic planning for a long-term maintenance program for each school.

- A master schedule of yearly maintenance requirements should be established and work should be completed before the start of a new year (e.g., boiler cleaning, light replacement, care of specialized mechanical equipment, replacing of furniture).

- Vehicles which are to be used by maintenance personnel should have two-way radio communications systems installed. This is important for several reasons. It saves time in emergencies and if additional equipment is needed it can be called for immediately.

- Under coordination of the Associate Superintendent, Business Affairs, the Division of School Plant Operation and Maintenance and other divisions under his direction should make cost studies showing variations of cost of custodial and maintenance services in relation to variations in structural features of school buildings. The objective of this is to feed back into school plant planning of new buildings information which will avoid false economies through use of inferior grades of finishes, mechanical systems and the like and inadequate provision of conveniences needed to simplify custodial services and reduce the volume of repairs and maintenance.

Pupil Transportation

Transportation of school children is the means by which small, costly and ineffective schools can be replaced in sparsely populated areas by larger school units equipped with staff and facilities to offer a full range of educational services to children and youth. Children remote from their schools are denied an educational opportunity if a safe and convenient method of getting them to school is not provided.

Scope of Transportation at Present. In densely populated areas, such as in most of the City of Nashville, it is generally possible to locate schools of economical size within walking distance of pupils' homes. Only in the case of special schools serving pupils or students whose homes are widely distributed in a city is transportation necessary in such areas.

Free public transportation in the Nashville City system has been provided only for handicapped children. This has been in keeping with practices in Tennessee, which does not encourage transportation by allocation of State aid for transportation to cities. Under the new Metro School System it is assumed that transportation where necessary, either in the former City limits or elsewhere, will be provided under a uniform policy. In the budget request for the City schools for 1963-64, $120,000 has been included for transporting approximately 4,000 children in the City area.

During the 1961-62 fiscal school year, 25,110 pupils were enrolled for transportation in Davidson County. This is approximately 50 percent of all pupils enrolled in the County school system. The policy of the County has been to provide transportation to those students living one and one-quarter miles from the nearest school. State aid is given to those pupils living one and one-half miles from the nearest school. It is most common practice throughout the State and country to transport children living less than a mile and a half from the nearest school.

To provide transportation services the County contracts for transporting most of the handicapped children and operates 106 buses for regular runs, seven spares and three reserves, for a total of 116 district-owned vehicles. Inspection of these buses indicates that they meet State specifications and the late vintage buses go beyond State standards.

The seating capacity of the buses ranges from 62 to 82. The age of the buses ranges from vehicles manufactured in 1947 to those made in 1963. Through good planning and staggered school opening, each regular bus runs three to four trips. The average that each bus transports daily is approximately 210 pupils. This is obviously a high utilization of buses and is possible only by using the large capacity vehicles. The bus fleet covers approximately 8,500 miles daily and 1,500,000 miles per year. This averages about 80 miles per bus daily. The range is from 26 to 175 miles for a sample of 78 buses.

With normal pick-ups a school bus can cover 20 miles in an hour. In scheduling of bus routes, the maximum time a student spends riding on a bus should, under normal conditions, be less than 35 minutes. Thirteen of 78 sample bus runs are longer than 35 minutes. However, 83 percent of the runs are less than a half hour from pick-up to arrival at school and the school system should be commended for this practice. An effort should be made that all bus runs be less than 35 minutes in future scheduling.

Educational field trips are recognized as a valuable function of the learning process. Arrangements to go on field trips can be made by requesting a bus through normal channels. A $5 fee for the driver has to be paid by the class or classes requesting the bus.

Quality of Service . The quality of service of the County transportation system is high. Buses beyond the one-and-one-quarter mile limit stop as frequently as 600 feet from stop to stop. Most students ride less than one hour on the buses.

The management of the buses is performed by a Supervisor of Transportation, whose main functions are to route buses, handle all grievances, supervise the bus operation and maintenance, fill out the multiple State and local forms, keep records, write specifications for bidding supplies and equipment and control the transportation budget. Other transportation employees are: an assistant supervisor, who is in charge of the maintenance of the bus fleet, a bus garage foreman, a storeroom clerk, a gas distributor operator, seven bus mechanics, 106 drivers and approximately 19 substitute drivers, plus one part-time secretary who is shared with the school lunch operation.

All bus drivers are required to attend a three-day, in-service workshop in the late summer and one day during the spring vacation. New drivers, as well as drivers who are assigned new routes, are required to make several dry runs with their buses on their particular assigned route before school opens.

District-Owned Buses. All buses are maintained in the district-owned bus garage. During the school year the schedule calls for monthly preventative maintenance checks for all vehicles. This includes a lubrication, brake and tire adjustment, etc. Most buses are based either on school grounds or near the driver's place of residence.

During the summer months buses are cleaned, painted and given major repairs. The magnitude of the summer work can be illustrated by the fact that during the summer of 1962,35 buses were painted.

During the school year buses receive their gasoline supply through a tank truck which meets a particular bus at a predetermined place, usually at a school.

New vehicles are pusher-type transit buses with seating capacity of 79 pupils. The chassis and bodies are bid separately. The specifications are clear and detailed. With better methods of routing and more pupils to transport the trend nationally is towards using transit-type buses, because larger and fewer vehicles will transport pupils more efficiently and economically. However, although the larger capacity buses which are being purchased by the school district are of sound economic value in the operation of the transportation system, smaller capacity buses could, under present routing, also be used to good advantage. They are less costly in initial purchase, less costly to operate, easier to manage and will provide sufficient seating capacity for approximately 20 percent of the present routes. Gasoline is bid every three months, thus giving local vendors an opportunity to bid three or four times a year on this major item.

Insurance for buses is carried in the amount of $10,000 property damage, $200,000 individual liability, and $1,000,000 total liability. This coverage is beyond the State required minimum and the Davidson County school district should be commended for carrying insurance which is in keeping with present-day requirements.

Bus Routing. School bus routing is performed by the Supervisor of Transportation and this is a full-time summer job for him. He knows every route and new area in the County and from memory, with the aid of a large map, writes up all the new routes. He does an exceptionally good job of routing. The only major criticism the survey team could find with this method of routing was that no single map or several maps had bus routes located. In other words, there was not a record, except in the mind of a most capable Supervisor of Transportation.

There are many good ways of routing buses. One way is to have a spot map showing the location of students and routing according to school location. A second method is to outline a geographic area beyond the one and one-quarter mile and route by having overlays on a map. A third method is to have an aerial photograph of the County made up into a single mosaic, which is then outlined by a grid system. Routing could be based on the number of students living within a particular grid point, after location of all possible transporting roads. This system could be utilized with data processing by locating each pupil by a grid number, and each run in each area could be located and could be routed by grid number stops.

Personnel. Bus drivers are required to have annual physicals and after the age of 55 two physicals are required. The school bus drivers have full responsibility for children riding their buses and are authorized to suspend students transported on school buses temporarily for a discipline or safety violation. The bus drivers work closely with the local school principals in disciplinary cases and a generally good relationship has been built up over the years. During the last seven years it has been difficult to obtain drivers of the high caliber that the school system would like to employ. Some consideration should be given to women drivers, since many housewives could well qualify to drive buses, especially since the new vehicles have power steering, power brakes and automatic transmission.

Bus drivers are paid $197 to $255 per month and substitute drivers are paid $9 per day. There is considerable concern on the part of some of the drivers relative to the pay schedule and amount of supervision. This is a matter which should be looked into further.

Bus drivers work, on the average, four hours and 50 minutes from the time they leave home to the final parking of the bus. The number of hours worked ranges from three hours and 20 minutes to a maximum of seven hours. Yet the pay scale for all drivers is the same. In remuneration of bus drivers, consideration must be given for hours worked, if a fair compensation plan is to be initiated. It is grossly unfair for a bus driver who drives for seven hours and a distance of over 140 miles to be paid a salary equal to that of a driver who works only three or four hours and who drives less than 40 miles a day. A change in the present pay schedule should consider a basic schedule for all drivers and additional compensation for those drivers who work additional hours.

Transportation Costs. Definitive information was not available on costs per pupil-mile or similar measures useful in evaluating return in transportation service per dollar spent. On a cost per pupil basis, however, the record shown in Table 38 is to be considered well within the range of reasonable school transportation costs for comparable school districts. This is attributable in part to a commendably operated and well-managed program and in part to the necessity in some respects to follow too closely minimum standards of condition of

TABLE 38

PUPIL TRANSPORTATION
IN DAVIDSON COUNTY, TENNESSEE
1957-63

Year	Total number of pupils enrolled for transportation	Average no. of pupils transported daily	Total cost of transportation	Per pupil cost of transportation based on enrollment	Per pupil cost of transportation based on average no. transported
1957-58	19,105	16,106	$388,273.56	$20.32	$24.26
1958-59	20,641	17,866	414,854.56	20.10	23.22
1959-60	22,755	19,837	463,524.59	20.37	23.37
1960-61	24,287	21,233	595,243.37	24.51	28.03
1961-62	25,110	21,917	658,564.40	26.23	30.05
1962-63	26,500*	22,042*	652,600.00*	24.63*	29.61*

* Estimated

equipment and pupil load to capacity ratios.

Since 1954 the number of pupils transported in the County has increased by 63 percent. During the same period, costs of operating buses, maintenance, gas, oil, etc. have risen only 57 percent. Expenditures for equipment replacement and purchase of new equipment have not kept pace with the increase in pupils transported. The major item reflecting increases in cost is cost of drivers' salaries -- a 95 percent increase since 1954. This increase is a combination of additions of drivers and increases in pay scales.

The County transportation system will have to serve as the nucleus of the new Metro school district's system. There are now 26 buses which have been in service for over 12 years and now or soon will reach a condition requiring replacement. Since 1950, the County system has added an average of about eight buses per year. This has not been a sufficient number to accommodate replacements needed and additions for new routes. Therefore, the new Metro system should plan to replace buses during the next 10 years at the rate of about 10 per year to maintain a fleet up to standards of the newer equipment purchased in recent years.

This will cost in the neighborhood of $150,000 per year at present price levels. In recent years, funds for purchase of buses have been only about two-thirds this level. In addition, new buses will be required to accommodate increased enrollment. For both purposes, replacement of vehicles and purchase of new buses for new routes, outlays of between $210,000 and $240,000 per year will be required during the next decade. In addition, increases will need to be anticipated for operating costs of school transportation. Even with exceedingly efficient management, the requirements for operating expenditures will exceed $1,000,000 by 1972.

Further Considerations. The following should be considered in future transportation planning:

- A Division of Transportation with full-time clerical assistance and adequate supervisory staff.
- The purchasing of smaller vehicles including nine- and 12-passenger suburbans to transport the handicapped children.
- The installation of tachometers on all buses. This is another device which would promote punctuality and safety.
- The bidding of all major supplies and equipment once a year, to save time and money over the present arrangements.
- The rezoning of some school district boundaries to allow

more efficient routing and enable many bus runs to be less than one hour in travel.

- Specifications on chassis and body written so as to permit more competitive bidding.

- Written records of all bus routes available for all schools and interested personnel, including a small map for each showing all runs to be made by a particular bus. On this map should be entered stops and approximate times of various stops.

- A large map prepared by the Transportation Division, showing all bus routes by school district and limits of mandatory transportation.

- The planning of a grid system with the aid of data processing for future transportation routing.

- Daily reports by bus drivers on the condition of their vehicles.

- Arrangement to have the City pupils transported by the City transit line, until additional buses can be added to the school fleet.

Food Service Program

In the Metropolitan area, the two separate school systems were operating 138 school cafeterias in the school year 1962-63, 45 in the City system and 93 in the County system. This represented in dollars an operation of approximately $4,500,000 in the year 1962-63 (see Tables 39 and 40). The Nashville City and Davidson County districts in the new Metro system are operating to a large degree on two completely different bases.

Nashville. The Nashville City system operates under a centralized lunch department with a Supervisor of the school lunch program directly responsible to the Assistant Superintendent of Schools for Business Affairs. The duties of the Supervisor of the school lunch program include the following:

- To supervise the planning of menus, which involves:

  Approving and revising menus submitted by cafeteria managers.
  Furnishing managers with suggested menus.
  Setting up policy of using standard recipes.

TABLE 39

NUMBER OF SCHOOLS AND EMPLOYEES IN SCHOOL LUNCH PROGRAMS, NASHVILLE CITY AND DAVIDSON COUNTY SCHOOLS, 1962-63

	City	County	Combined
Schools with cafeterias	45	93	138
Operating under a-la-carte	45	62	107
Operating under national school lunch program	0	31	31
Participating under the national milk program	45	93	138
Full time employees	391	680	1,071

TABLE 40

DOLLAR VOLUME OF SCHOOL LUNCH PROGRAM IN NASHVILLE CITY AND DAVIDSON COUNTY, 1962-63

System	Employee payroll	Total operating income
Nashville City	$ 631,935	$1,970,710
Davidson County	758,485	2,543,631
Both	$1,390,420	$4,514,341

Standardizing portions and prices in similar school groups.

Devising means of getting children more interested in hot plate lunches, such as running a special plate, etc.

Drawing up forms of menu records, employee record cards, etc. and supervising the maintenance of those reports and records.

- To supervise the purchasing, receipt, weighing, inspection, storage and distribution of food and supplies according to general plan approved by the Board of Education.

- To spot-check inventories of stocks for accuracy, as directed.

- To nominate for appointment all personnel and to make recommendations with respect to assignment and transfer.

- To make recommendations for new equipment and repairs, and to insure proper care and use of equipment.

- To prepare specifications for purchase of foods, supplies and equipment and send out bids.

- To establish uniform standards of cleanliness and sanitation, and inspect cafeteria facilities for conformance with proper functional and sanitary standards.

- To make a monthly report on the operation of the school cafeterias, personnel, etc. and maintain necessary operating records.

- To insure maximum utilization of food donated by the Federal Government and insure maintenance of proper records of all U.S.D.A. foods.

- To supervise the collection and accounting of cash receipts and audit register tapes.

- To review invoices and delivery tickets for food, supplies and equipment delivered to schools to insure that they meet specifications.

- To interpret school lunch objectives to principals, teachers, students and parents.

- To develop and conduct courses of instruction in cafeteria operation and management, nutrition, personnel training and sanitation.

- To perform such other duties as may from time to time be assigned by the Nashville Board of Education.[1]

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[1] Nashville City Schools Lunchroom Association. Handbook of Organization and Administration. August 1961. p. 6-7.

The local school principal "is charged with the discipline and general control of the school." His main duties for the lunchroom operation are:

- To maintain proper discipline in the school cafeteria.

- To arrange a lunch schedule for students.

- To cooperate with the local cafeteria manager for maximum efficiency.

- To keep the local cafeteria manager informed on any change in school procedures and policies that may affect the lunchroom operation.

The local school cafeteria manager, directly accountable to the Supervisor of the Lunch Program, has these main duties:

- To manage, control and operate the cafeteria and cafeteria personnel.

- To keep the cafeteria in sanitary condition at all times.

- To take care of all cafeteria equipment and to train personnel in proper use of equipment.

- To supervise and direct the collection of school lunch funds and to render proper accounting of such funds to the Supervisor of the Lunch Program.

- To requisition all foods for cafeteria use, to prepare menus and to maintain a nutritious and economical cafeteria.

- To report on the conditions and need of equipment for the proper function of the cafeteria to the Supervisor of the school lunch program.

Davidson County. The Davidson County school lunch facilities are handled in a different manner. They are operated by the school principals with some general supervision by the County Supervisor of Cafeterias.

The County Supervisor of Cafeterias has general supervisory responsibility in seeing that all Federal, State and Board of Education directives and policies are carried out. She spends a major share of her time in reviewing financial and other reports. She is responsible for approving the hiring of school lunch personnel, takes leadership in providing in-service workshops and assists the local cafeteria managers in any way to promote a better local food service operation. She is directly responsible to the Superintendent of Schools for her defined functions.

The local school principal is responsible for the total operation of the school cafeteria, including the fiscal and accounting requirements as set forth by directives from the County Board of Education. The principal selects his own cafeteria manager, with prior approval by the Superintendent of Schools and the Supervisor of Cafeterias. All other cafeteria personnel are hired in a similar manner.

Since the principal is responsible for the fiscal management of the local school program, he also specifies in detail hours of work, wages, etc. Therefore, contracts may vary from one school to another in the County system.

The local school cafeteria manager, directly accountable to the principal of the school, reports to him on all matters concerning the cafeteria operation, with these duties:

- To prepare nutritious menus.
- To purchase all food and supplies, mainly from local firms.
- To manage, control and operate the cafeteria and the cafeteria personnel.
- To supervise and direct the collection of all school lunch funds and to render proper accounting of such funds to the school principal and any other auditing agencies.

Advantages and Disadvantages. Much could be written about the City and County school lunch programs, both of which are doing a superb job in operating their cafeterias. Both staffs are extraordinarily well-qualified and should be commended for their excellent food service programs. The plant facilities, equipment and supplies are, for the major portion, well equipped and most satisfactory.

The centralized and locally-operated lunch programs have good and poor features. Some of the good features of a locally-operated school lunch program are as follows:

- Food can be selected for local community needs and desires.
- There are certain incentives for local management to operate a local program.
- The responsibility of fiscal management is dependent on the local district.
- Local merchants have an opportunity to supply the school district with produce, etc. Thus, some good will is built between the local community and the school.
- Labor costs can be kept down, since school lunch employees in locally-operated cafeterias are not on Civil Service, do not share in pension plans other than Social Security, and are not likely to become organized to promote wage increases and other costs.
- If local schools are enabled to operate their own school lunch program to make a profit, additional funds are available for extra help and needed materials and supplies.

Some of the poor features of a locally-operated school lunch program are as follows:

- It is not set up for buying of produce and supplies in large quantities.
- There is no real assurance that each school is serving a well-balanced meal.
- It is difficult to supervise and control use of public funds in the program.
- Many clerical and other operations are duplicated in each local school (e.g., payrolls, accounting, purchasing, etc.)

- If profits are made from school lunch to be used for school purposes, this places an unjust burden on some parents and may deny some children the food and nutrition they need.

Some of the good features of a centralized food service operation are:

- Quality control of produce is uniformly available to all schools.
- Competitive bidding of all produce, materials and supplies on a quantity basis saves money.
- Food purchasing is a specialized field and can be accomplished on a more scientific basis in a central operation.
- Uniform salaries for equal service are established and controlled.
- Planning of menus by specially trained personnel assures a more complete and nutritious lunch.
- Fiscal management in a central office relieves local schools of this burden and responsibility.
- Long-range planning of a food service program is more feasible.

Some of the poor features of a centralized food service operation are as follows:

- There is a tendency in any large operation to become overformalized and complicated with "red tape."
- The differences in local communities are not always considered.
- Local merchants cannot compete with quantity buying on competitive bids.
- Local initiative can become stymied.

Recommendations. It is recommended that the new Metro school district operate its school lunch program on a basis which is designed to preserve, as far as possible, the merits of each of the two existing systems. However, the program should be Board of Education managed, financed and controlled with suitable adaptation to local school and community requirements. Protection against evils of centralization can be assured by allocating to central office administrative personnel only those functions which can most effectively be handled on a system-wide basis. In phasing the development of the program, the following functions should be centralized in order of importance:

a. Accounting and fiscal control.

b. Supervision.

c. Personnel administration, including job specifications, selection, assignment, and in-service training.

d. Management and control of purchasing and warehousing.

e. Establishment of systems, as required, of non-local school food preparation of some foods (e.g., meat cutting, preparation of dressings) either in area or satellite kitchens or in central, system-wide kitchens.

An optimum centralization of the food service program is justified by the following:

- A principal of a school should devote all of his effort toward the educational program of the school and any time which is taken from this main function deprives the school children of their education.

- Food service for a school system of 100,000 children or more becomes a highly technical and specialized field. A central operation can have trained personnel and the entire school district could benefit from their services. The cost of providing such services in each local school would be prohibitive.

- Competitive purchasing will save money for the entire district. A study made by the Nashville City district for September, October and November, 1962, reveals that savings can be realized by competitive bidding.

- The palatability and preparation of food will still depend upon the local school personnel; therefore, cooking of foods will still be a main incentive to meet local needs and desires.

- There is more assurance that each school will have a similar high quality supply of foods, produce, etc., to requisition from.

- With over $4,500,000 being spent in the Metro school district for food service, a sound, centrally-controlled fiscal management procedure must be put into effect to protect the school personnel, the public and the Board of Education.

Some additional recommendations, as viewed by the survey team, which might help for an orderly transition to a unified school lunch program are as follows:

- The National Lunch Program can reduce costs through taking advantage of surplus commodities, but it has certain disadvantages and is not a means by which the school system is relieved of funds for purposes of providing free lunches. There needs to be a study of just how this program can best be worked into the new Metro district's school lunch program. Without doubt it will have a place, but there are many parents in the community who have grave doubts that the overall advantages might be accepted at the price of some children being denied the food they want and need. This matter must be thoroughly explored and results of such exploration explained to all concerned.

- The methods of determination of eligibility for free lunches should be established on a system-wide basis under central control with proper coordination between the school administration and the appropriate welfare agencies in the community. In this matter, the appropriate school staff are the specialists recommended for pupil personnel services elsewhere in this report, not cafeteria managers nor even in many instances school principals.

- The school lunch program should be non-profit. If schools need supplies, equipment, or extra help to operate the educational program, this should be a part of the regular budget of the school system, supported by appropriate revenues. Public education is not public education if not supported out of public funds. Profits from school lunch are funds derived directly from parents and children, and as such are more in the nature of hidden capitation taxes or tuition than public funds. This is not the way to finance free public education.

- There is a dire need of additional professional and clerical help for central administration of the lunch program. The professional staff should have sufficient time to make routine stops at each school cafeteria, and to supervise adequately local school cafeteria personnel.

- Thought should be given to obtaining cash registers with locked-in totals for more efficient control of food funds received in the local cafeterias.
- All items, including perishables, should be bought on competitive bidding. Some of these items could be bid on a cost-plus basis.
- All payrolls, accounting and reports should be handled centrally by machine accounting and through a central data processing center.
- An auditor selected by the Board of Educational should carefully check all local financial reports for the protection of all personnel concerned.
- The workshops and monthly cafeteria managers' meetings now conducted in both systems should be continued in the new Metro system.
- A careful analysis should be made of all reports to minimize unnecessary clerical work.
- The principals of County schools should welcome the relief from the necessary accounting responsibilities; however, under a new system all principals should continue to have major responsibilities and cooperate in the planning of an adequate local lunch program.
- As the Metro School System unifies its food service operations, it must consider the building of warehouses in strategically located areas. This, of course, is an initial capital expense and should be phased over a period of several years. This capital expense should pay for itself in large-quantity buying.
- In school building construction in future, the Board of Education should consider ways of reducing capital costs of expensive kitchens in each and every school. Networks of school lunch services in neighborhoods could be established in some areas such that some food preparation and storage could be undertaken in only the largest of three or four buildings, thus eliminating duplication both in facilities and operating costs.

Through such a program, the Board of Education will have more direct control and should be able to assure its community of a sound and valuable service in the provision of nutritious school lunches.

School Budget

The school budget is the core of financial management and an instrument of policy. It should present a picture of revenue and spending plans for a fiscal year, as well as the educational plans upon which the revenue and spending plans are based. A budget should enable the general public to understand (1) what programs and operations are to be attempted; (2) what these programs and operations will cost in terms of personnel and monies; (3) how each program will contribute to realization of the educational objectives; and (4) the revenue sources used for support of the educational program.

The budget document should be the educational program envisioned by school policy makers in terms of dollars and cents.

The process by which a budget is made generally stems from the need of individuals requesting certain items to manage and operate a program.

The school budget is compiled and prepared in both the City and County systems by the school business staff. Both systems now use the accounting and classification system as set up by the Tennessee Department of Education, and therefore should have little trouble in combining this information and accounts into one budget.

Nashville. The City of Nashville school system prepares its budget through requests made by the various department supervisors. The department supervisors make up their requests from conferences with individual school principals and general needs as they envision their special program and special projects for the coming year. Each request which is bound into a departmental budget requires justification for planned expenditures. (The department heads also make up from these requests standard lists of items, which are submitted to the Assistant Superintendent for advertising and requesting for bids.) The next step includes a study of the department budget plus a study of needed personnel, salaries and other requested items by the Assistant Superintendent and Superintendent of Schools.

From this a Superintendent's budget is made up, which is then presented to the Board of Education, which reviews, edits, deletes, changes, or adds certain items. It was formerly submitted to the City government for approval by the Mayor and other committees, but more recently, for the 1963-64 budget, to the Metro Mayor and Council.

The Nashville City district budget is a document with explanations, justifications and analysis of all major categories within the various accounts. The Nashville City district should be commended for its fine budget and should continue a similar type of presentation under the new Metro Board of Education.

The only major criticism as viewed by the consultants is that in the process of making up a budget, individual school principals should be allowed to present their needs as required for their particular program. This would permit individual school accounting of major expenditures, a practice of considerable use in financial analysis.

Davidson County. Davidson County prepares its budget by requests from individual principals. This is done by conferences and by written letters to the Assistant Superintendent for Business Affairs. These are all compiled with other requests such as transportation, new personnel, maintenance, etc. A total budget is prepared by the Assistant Superintendent, who in turn analyzes the requests in conference with the Superintendent. Formerly, it was then proposed to the Board of Education, which usually set a figure of budget expenditures and adopted,category by category,major accounts in meetings with the Superintendent and his staff. After adoption by the Board of Education the budget was then submitted for approval to the County government, which in turn approved or requested that certain amounts be deleted from the budget.

The budget document of the Davidson County school system shows the major account categories and some pertinent information considered in the preparation of the proposed school budget. However, in the judgment of survey staff, a major criticism of the Davidson County budget is that written justification and analysis are not shown, even though such analysis has been made by the business department.

Conclusions and Recommendations. In analyzing both school systems' budget administration, there are several items which should be considered in the new Metro operation:

- A budget calendar should be made up each year with due dates for requested information.
- Standard forms for requested information should be filled out by pertinent personnel such as supervisors, principals and department heads.
- A budget document should have ample written description and thorough justification for proposed expenditures. This is a matter which demands attention in 1963-64 for the 1964-65 budget. This will be a difficult task for the Transitional Board, since it will go out of existence and the new

Board and Director will not take over until the new year begins. The taxpayer and the public will need to know as clearly as possible what the price tag is and what they will get with it.

- A proposed and adopted budget should be printed and made available to the general public in abbreviated and popularized form.

- The budget document should include:

    a) The educational philosophy of the school system as as general introduction.

    b) Graphs, charts and tables to show comparative figures of expenditures and receipts.

    c) Student accounting data and information.

- Principals, department heads, etc., should be notified of any deletion from their budget requests and should have a say as to what items should be deleted.

XV

ADMINISTRATIVE ORGANIZATION

It should be apparent from the analyses of previous chapters that a major task of the Metropolitan Board of Education is that of designing and staffing an effective organization so that unification can be effected, adequate services provided and effective management assured.

Principles of Organization -- Theory and Practice

The designing of the administrative organization of a school system depends upon the kinds of yardsticks or criteria used. An important aspect of the development of any type of human organization is the creation of understandings of all concerned of the conceptual framework or set of guiding principles upon which it is based. Words such as "administration," "management," "direct," "supervise," "control," and "organization" have many different meanings.

The essential ideas which have controlled the thinking of the survey staff in its examination of the Metro School System's administrative organization requirements are briefly outlined in the following:

- Administrative organization is primarily a matter of creating an environment for work, the performance of which is required in order to accomplish purposes.

- Organization includes people and the structuring of positions into organization components. It is customary to think about organization structures as organization of work into individual positions which can be staffed with normally available persons.

- In designing individual positions, all of the work of an organization should be designed into some position or positions in the form of responsibility for results. This includes, on the administrative level, managerial work and relationships or teamwork responsibilities in addition to functional work.

- Small school systems can adopt an authoritarian approach where the major decisions are made at the top and other persons carry out wishes of the leader. This was common a generation or two ago in most school systems. As education has developed and has become more complex, it has become impractical for any one person to have sufficient knowledge to make all the best decisions, or to have time, even when surrounded with assistants, to give adequate attention to all matters.

- Complete responsibility for the work of a function should be assigned either to an individual position or to an organization component. The incumbent in such a position is then expected to be accountable for results in accomplishing pre-determined objectives at agreed-upon standards with whatever authority he needs to conduct such work, limited only by identifiable policies and by specifically stated withheld authorities.

- Decentralization, maximizing the assumption of responsibility for individual decision-making and minimizing the sharing of responsibility, develops leadership and growth of individuals and results in effective utilization of human resources. Decentralization builds strong organizations with a continuing supply of leaders to fill vacancies and to build an expanding organization.

- Measures should be established for accountability so that each person can measure the results of his work. On the assumption that people are given a clear understanding of their responsibilities for accomplishing objectives assigned to their positions, an organization must have evidence of the effectiveness of the work accomplished by each individual. It is a duty and an obligation of all personnel in a school system to take stock of their accomplishments and to report them to the next level up. A person should be accountable only to one other person.

- Relationships should be designed into positions to show how the work of one impinges on the work of another without interference in work progress.

- Organization should be such that each operation, at any position, should come as near as possible to completion of the work. The principle of "completed work" is one means by which time may be saved in decision-making. Decision-making kept as close as possible to the point of action where necessary knowledge is normally available is desirable.

- Within the framework of Tennessee laws and the Metro Charter, relating to education, there are many individuals with legal authority to participate to some degree in decisions about schools. The importance of the public and both local and State governmental agencies is not to be overlooked. It goes without saying that the foregoing principles concerning organization for work cannot be put into practice unless there is an effective system of communications, not only for purposes of informing staff, but also for purposes of keeping the school system in tune with the community which it serves.

Present Organization

It is of little moment to review the organization of the two separate school districts now operating under the Transitional Board. The major purpose here is a development of guides for establishing the new organization which, at least in skeleton form, must be in operation by July 1, 1964. It is thus essential that some of the recommendations contained herein be taken into account by the Transitional Board in tentative form so that a budget can be prepared and defended for next year and so that there can be some minimal consolidations of staffs to enable school operations to function as smoothly as possible as the new Board and the new Director take over. The task will consist of determining what personnel are to be combined and how, and deciding upon additional positions to be filled for work which must be accomplished next year.

There has been some confusion during the transitional period. This is to be expected. In part, however, present weaknesses in the administrative organization for the Nashville-Davidson County combination are due to the necessity of operating under two quite dissimilar systems with differing policies and administrative practices, neither of which has been geared to the requirements of the new system.

Though the Transitional Board and the two administrations have performed with diligence and sincerity during the current year under provisions of the Charter, there are aspects of the present situation which are acceptable neither as good organization in principle nor as means by which to implement the objectives of establishing a Metropolitan School System. We note the following:

- There is no single executive head and will not be until the Director of Schools is appointed. This inevitably places a burden of executive decision-making on the current Transitional Board, which as a policy-making body must depend upon the voluntary and cooperative coordination of the two superintendents and their staffs.

- There is no written policy for the new system. Policies, rules and regulations of the two systems differ considerably. There is now no one responsible, other than the Board itself, for changing this as occasions arise.

- There are few provisions in the administrative structure for adequate work on community relations, a responsibility in public education under democratic government which consumes much time of a Board of Education and others in the administrative staff of a school system.

- There is a great variation among staff and principals in how they now divide their time and would prefer to divide their time among different types of intellectual activity related to administration.

- There is evidence, on the one hand, of an overlaod of the Superintendents and the Board of Education in the management of the school system and, on the other hand, of not enough utilization of second-echelon positions and delegating more authority by fixing more responsibility in these positions.

- The school administration now lacks emphasis upon goals and objectives. It has of necessity been restricted to making provisional stop-gap decisions awaiting the new Board, etc. There should be paramount in the development of Board policies and in job specifications clear statements concerning each aspect of the work of the school system as to the purposes to which administrative operations are directed.

- There is a concentration of responsibility in the hands of too few and not a sufficient division of labor. This should be corrected by a lifting of the level of responsibility in second-echelon positions necessary for effective production of administrative work of the central office with adequate authority to carry this through and clear understanding on the part of all concerned that this authority exists. School principals should be relieved of much administrative routine so they can get on with their prime responsibility of supervision of instruction.

- Any statement of policy or statements of rules and regulations, as well as all efforts to clarify functions, duties and responsibilities of personnel in the schools, are useless unless such basic guides to performance and behavior are accepted, administered and followed rigidly. Recommendations for the solidifying and strengthening of the administrative structure and avoidance of overlap and waste in the operation of the school program can be only a token contribution to the development of the Metro School System unless ways are found of communicating policies and practices, of communicating duties and responsibilities and modes of operation such that undesirable pressures and influences of groups and individuals upon the

Board of Education and its administration are eliminated.

- As a major vehicle by which the community and all staff of the school system can see and understand the plan which it represents, the budget document itself should become this year a better medium of communication than were the two separate budgets for 1963-64. It should become a performance budget -- one emphasizing purposes, how these purposes are implemented in each function, and why it costs what it does. This should go far in assisting the Board to match revenues with the educational goals and aspirations of the citizens of Metro. This is particularly important in school systems which are fiscally dependent since it facilitates the Board role of representing the people.

- In the final analysis, the effectiveness of an organization, no matter how well designed, depends upon the capabilities of the personnel who are assigned to positions in it. A clear statement should be included in future policies concerning recruitment of candidates for administrative positions. Procedures should require recommendations from each level above and approval by the second level above for each such position. The ultimate consideration should be filling positions with best qualified available candidates. It is essential that procedures guard against the introduction of irrelevant considerations. Under no circumstances should a local candidate be disqualified simply because of existing employment in the school system. Neither should he be given preference solely on grounds of experience in the school system.

- The record keeping and information services of the school system should be improved so as to minimize the amount of time and energy of professional personnel at all levels on clerical tasks and to provide needed evaluative information concerning all operations of the school system. The two districts have different systems for accounting, attendance and reporting. These should be consolidated as soon as possible with careful planning.

Even if completely reorganized, there is serious doubt that there is now sufficient central administrative staff to do all of the planning, directing, supervising, organizing and coordinating to get the new school system established and to keep it in order. In the two school systems combined there are presently 63 central administrative professional personnel. Very few school systems of the 90,000 to 110,000 enrollment class operate with a central staff as small as this. The data in Table 41 summarize central office administrative staffing practices of some school systems in the United States in this category. For this group, the average number of

TABLE 41

CENTRAL OFFICE STAFFING IN CITIES OF APPROXIMATELY 100,000 ENROLLMENT AS OF OCTOBER 1961

School system	Pupil membership	Superintendent deputies, associates, ass't supts., etc.	Other central administratiors	Total central administration
San Diego	109,737	11	156	167
Washington, D. C.	127,268	11	92	103
New Orleans	91,415	10	76	86
Baltimore	175,042	6	341	347
St. Louis	105,858	7	82	89
Cleveland	138,474	5	168	173
Dallas	131,566	7	39	46
Seattle	100,678	6	141	147
Milwaukee	106,755	9	284	293
Denver	93,555	11	169	180
Atlanta	98,006	11	73	84
Indianapolis	91,485	7	65	72
Memphis	103,462	5	40	45
Median		7	92	103

Source: National Education Association, Research Division. Professional Staffing Ratios, 1961-62. Urban Research Series. Washington, D. C.: the Association. August 1962.

central administrative positions is over 100. It is thus not unreasonable to expect this number of central staff in the Metro school district.

In the final analysis, how many administrators are needed will depend on how the new Board and the Director of Schools divide the administrative work of the school system, how well staff is recruited and assigned to do the work, and availability of funds to do the work. The survey team has nevertheless established a suggested staffing pattern which will be needed to implement the recommendations of this report. This appears in Table 42. The total of 101 is consistent with staffing-to-enrollemnt ratios practiced throughout the country.

Suggested Reorganization

The statements which follow are specific recommendations which must be considered merely as guidelines for decisions to be made by the Metropolitan Board of Education and staff of the Metro schools. The nature of organization is such that an organization structure which will work in Nashville-Davidson County must be developed and put into practice by people in Nashville-Davidson County. The recommendations made in this report are not expected to be adopted in every detail, nor is it expected that a complete reorganization of the two school systems can take place immediately.

However, it is urged that both the Transitional Board and the permanent Metropolitan Board consider the major recommendations contained herein and institute procedures for continuous re-examination of the administrative policies and structure of the new school system. Some of the features of the following suggested organization are an implementation of this recommendation.

Proposed Basic Structure. The proposed basic structure which is recommended for the Metro School System is shown schematically in the accompanying diagram. As a means of up-grading the central administrative organization and permitting a better reallocation of functions under the principle of decentralization, this plan shows three major administrative branches. Each of the administrative branches is headed by an Associate Superintendent. The three branches are respectively Professional Services, Instruction and Business Administration.

It is proposed that there be a reasonably clean-cut compartmentalization of functions assigned to these organization conponents. Divisions are indicated as second-level units in each branch, each headed by a Divisional Director. Components of staff in most of these divisions are now in existence.

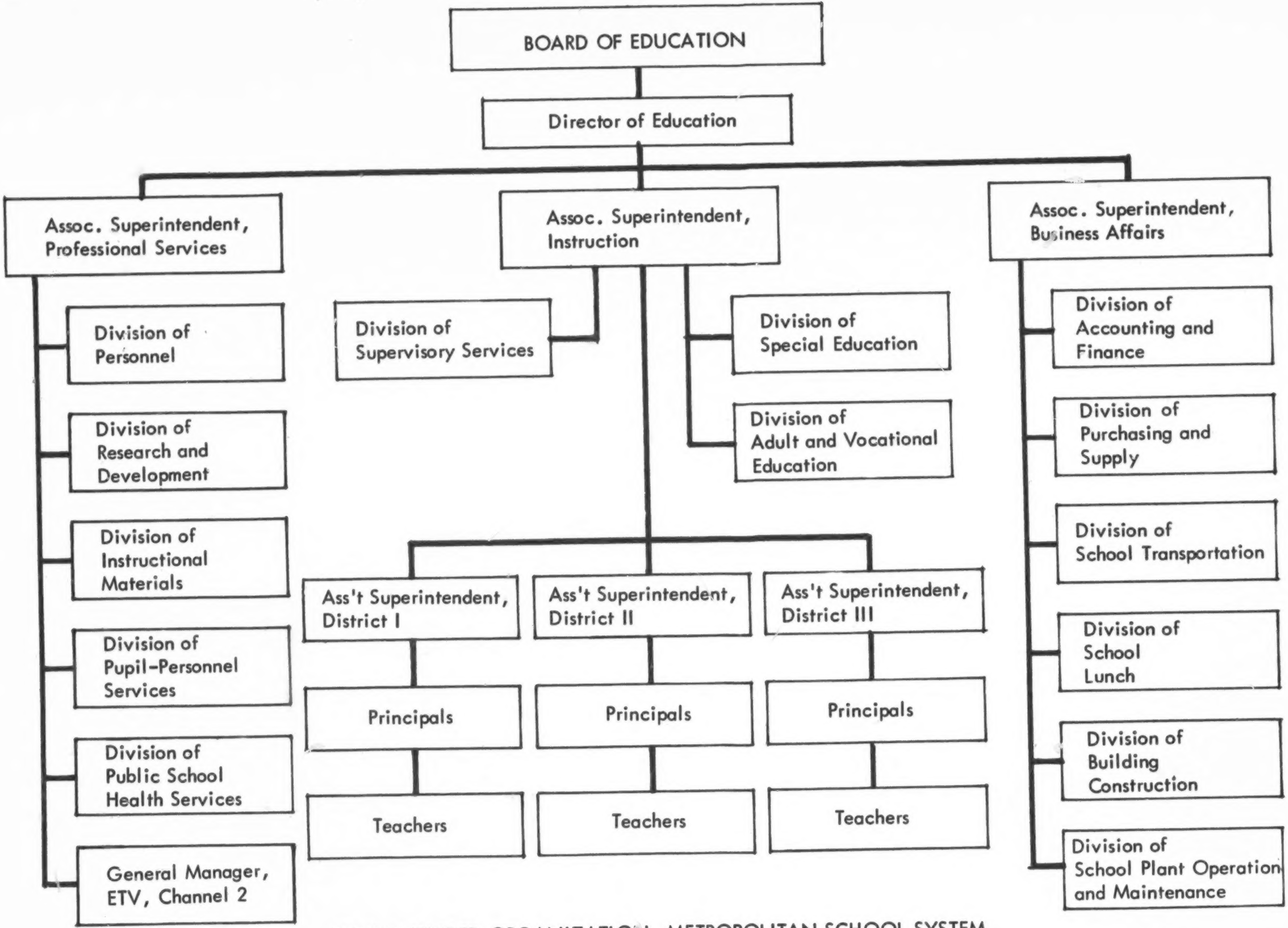
The function of work assigned to the Associate Superintendent, Instruction, is mainly the management of the instructional operation of the school system. This branch has a Division of Supervisory Services which will be composed

TABLE 42

EXISTING AND PROJECTED NUMBER OF CENTRAL OFFICE ADMINISTRATIVE STAFF BY FUNCTION

Function	Existing			Needed by 1972
	City	County	Total	
General administration*	2	3	5	7
Instruction				
Elementary and secondary	16	10	26	30
Special education	1	1	2	12
Adult and vocational	2	--	2	4
Services				
Personnel	2	2	4	6
Pupil personnel	--	--	--	2
Research and development	6	4	10	14
Instructional materials	1	1	2	10
E T V	--	--	4	4
Business affairs	3	5	8	12
Total	33	26	63	101

* Superintendent (or Director of Schools), Associate Superintendents, Assistant Superintendents


BOARD OF EDUCATION
Director of Education
Assoc. Superintendent, Professional Services
Assoc. Superintendent, Instruction
Assoc. Superintendent, Business Affairs
Division of Personnel
Division of Research and Development
Division of Instructional Materials
Division of Pupil-Personnel Services
Division of Public School Health Services
General Manager, ETV, Channel 2
Division of Supervisory Services
Division of Special Education
Division of Adult and Vocational Education
Ass't Superintendent, District I
Ass't Superintendent, District II
Ass't Superintendent, District III
Principals
Principals
Principals
Teachers
Teachers
Teachers
Division of Accounting and Finance
Division of Purchasing and Supply
Division of School Transportation
Division of School Lunch
Division of Building Construction
Division of School Plant Operation and Maintenance

RECOMMENDED ORGANIZATION, METROPOLITAN SCHOOL SYSTEM of staff whose main responsibility will be itinerant teaching, in-service training of teachers and supervision in special subject areas. This staff of specialists is different from those who would be assigned to the Divisions under the Associate Superintendent, Professional Services. Professional Services staff would be those with the special capabilities required for assignment to experimentation, research, curriculum development and special services which support the operation of the school system. Relationships on the Associate Superintendent level and relationships built into all job position guides are necessary to produce the desired co-operation between professional services specialists and specialists in subject matter areas whose duties are mainly working with the on-going program.

Since the number of schools, teachers, pupils and others in the Metro School System is too great for one single coordinating channel, three "administrative districts" are proposed, each with an Assistant Superintendent responsible for the administration and supervision of the instructional program of an assigned group of schools. These Assistant Superintendents and staffs assigned to them regularly should be housed in the central administrative offices of the school system for ready access to specialized personnel needed from time to time to serve in their respective administrative areas. The practice of splitting up large school systems in this way is common. For example, Atlanta has five field offices and New York City 25. Other cities with field offices are Chicago, Los Angeles, Philadelphia, Detroit, St. Louis, Baltimore and San Diego.

Responsibilities for these administrative district headquarters or field offices should be worked out carefully so that each of the Assistant Superintendents will be able to work directly with principals and the central office in all aspects of in-service education programs, improvement of instruction and community-school relationships, and can generally be held accountable for the administration and supervision of all the schools in his area. Organization for relationships of these offices with central office staff -- subject matter specialists, pupil-personnel specialists, testing and research personnel, and others -- will be of critical importance so that intercommunication and cooperative planning may be facilitated.

These administrative districts should be established in such a way as not to serve to engender divisive competitive regional pressures inimical to the interests of the Metropolitan School System as a whole.

The suggested scheme is also intended to strengthen the business administration aspects of the school system, creating six divisions under an Associate Superintendent for Business Affairs. The intent here is to permit people in the area of instruction to concentrate on their tasks by minimizing their responsibilites in the area of school plant, custodial services, cafeteria management, etc.

Additional functions demanding special staff working closely with the Director of Schools do not appear on the diagram. Because of the level of the work of the Director of Schools, he must have staff to work closely with him in expediting the work of the Board of Education and coordinating the work of others in the large school system. Because of the major responsibility which the Director of Schools and the Board of Education have, as has been noted previously, of keeping in close harmony with the community and of developing throughout the school system an adequate system of communication, there may need to be, reporting to the Director of Schools directly, a Director of Information Services. A budget allocation needs to be made for these positions, but their titles and assignments should be left to the Director of Schools upon his appointment.

Proposed Plan of Staffing. Under this plan, the staffing in more detail would be as follows:

BOARD OF EDUCATION

- Director of Schools
  - Administrative Assistant or Director, Community Relations
  - Administrative Assistant or Director (to be determined)
  - Associate Superintendent, Instruction
    - 3 Assistant Superintendents, Districts I, II and III
      - Clerical staff
      - Assigned teachers
      - Assigned specialists
      - Principals
        - Teachers
    - Director, Division of Supervisory Services
      - Supervisor of Elementary Education
      - Supervisor of Secondary Education
      - Supervisors of subject matter areas
      - Consultants, helping teachers, itinerant teachers, etc.
    - Director, Division of Special Education
      - Supervisor of Educable and Trainable Mentally Retarded
      - Supervisor for Secondary School Retardates
      - Supervisor for Speech and Hearing
      - Supervisor for Non-Sensory Physically Handicapped
      - Part-time Supervisor (emotionally disturbed, visually limited, etc.)
      - Head teachers
      - Therapists
      - Teachers
    - Director, Division of Adult and Vocational Education
      - Principals
      - Teachers

Associate Superintendent, Professional Services

- Director, Division of Personnel
  - Staff
- Director, Division of Research and Development
  - Specialists, statistical methods, testing and evaluation, data processing, experimental methods
  - Research consultants, assigned teachers
- Director, Division of Instructional Materials
  - Educational media specialist
  - Curriculum specialists
  - School librarians
- Director, Division of Pupil Personnel Services
  - Supervisors, Departments of Psychological Services, Social Work Services, Attendance, Guidance Services, Remedial Services
- Director, Division of Public School Health Services
  - School physician
  - School nurses
- General Manager, ETV, Channel #2
  - Staff

Associate Superintendent, Business Affairs

- Director, Division of Accounting and Finance
  - Staff
- Director, Division of Purchasing and Supply
  - Staff
- Director, Division of School Transportation
  - Staff
- Director, Division of School Lunch
  - Staff
- Director, Division of Building Construction
  - Staff
- Director, Division of School Plant Operation and Maintenance
  - Staff

Position Guides for Key Positions

It should be part of the responsibility of individuals in a properly organized administrative staff to determine the kinds of organization needed within their areas of responsibility and to determine specifications of the positions reporting to them. It is for this reason that, once the Director of Schools and the respective three Associate Superintendents are appointed in the proposed organization, their study of the management of their areas should be expected to result in modifications of what has been recommended here. For this reason it is of little meaning to have each and every position at each level described in detail.

One feature of the charter relating to the selection of members of the Metropolitan Board of Education needs careful watching. This is the provision that they be chosen from districts made up of Councilmanic districts. This limits the Mayor and the Council in a way which might prevent selection from among the community at large in order to choose the ablest and best in the interests of the school services to the entire community. Early in the formulation of policies by the Metropolitan Board of Education it should establish the principle that responsibilities of all Board members are to serve the best interests of the community at large and under no circumstances to further the exclusive vested interest of any segment thereof, geographic or otherwise.

In the following pages position guides are presented for the key positions in the proposed organization.

FUNCTIONS OF THE BOARD OF EDUCATION

Provide public elementary, secondary and adult educational opportunities for residents of the Metropolitan School System.

Establish general policies best to serve the common interests of the residents of the Metropolitan School System with reference to public education.

Select and appoint a competent Director of Schools as a chief executive officer, holding same responsible for the operation of the school system.

Interpret to the Director of Schools the standards for education acceptable to the community.

Review and approve annual budgets for the school system and support them before agencies of the Metropolitan Government.

Approve financial reports.

Initiate action to provide funds for educational needs.

Maintain liaison with appropriate governmental agencies.

Appraise results of the work of the Director of Schools.

Initiate audits of performance when advisable.

Approve appointments and removals of persons reporting direct to the Director of Schools.

Review long-range planning.

POSITION GUIDE -- DIRECTOR OF SCHOOLS

Broad Functions

Accountable to the Metropolitan Board of Education, the Director of Schools, as chief executive officer for the Board, is responsible for the operation of the school system within the general policies established by the Board and within the authority withheld by law.

The Director of Schools is responsible and has commensurate authority for the optimum utilization of resources to provide educational opportunities at standards acceptable to the community.

Principal Responsibilities

Interpret and communicate general policies established by the Metropolitan Board of Education to the school system and the community.

Determine the objectives, policies, plans and programs for the short- and long-term successful conduct of the school system as a whole.

Assure that educational opportunities and standards in the Metropolitan School System are maintained on a level at least equal to comparable communities, or, if funds are inadequate to this end, that the residents of Metro are fully informed of the reasons for lower standards.

Recommend facility planning to anticipate educational needs of the community.

Plan utilization of resources for the system as a whole and convey such planning to those persons reporting direct.

Take timely action, as appropriate, for accomplishment of objectives.

Promote proper balance between long- and short-term objectives.

Hold those reporting direct accountable for results in order to:
    Maintain high standards of education, ethics, responsibility and citizenship among pupils and students.
    Maintain leadership in education and citizenship.

Build and maintain good relationships with the community served.

Earn the respect of the community for professional and ethical leadership.

Select, appoint and remove persons in positions reporting direct, with approval of the Board of Education.

Approve appointments to and removals from positions two levels down in the organization structure.

Approve budgets for those functions reporting direct.

Recommend annual and long-range budgets for the school system to the Board of Education.

Review over-all short- and long-range plans for functions reporting direct.

Recommend salaries for those positions reporting direct.

Determine salaries for positions two levels down in the organization structure and recommend for Board adoption salary policy for the entire school system.

Approve the organization structure two levels down.

Attend all meetings of the Board of Education and such meetings of Board committees as may be deemed desirable, except when the Director's own status or salary is under consideration.

Exercise other duties and responsibilities that will assist the Board of Education in fulfilling its legislative function.

Relationships Responsibilities

Provide a climate which will encourage those reporting direct to discuss their plans and problems and receive advice and counsel without affecting their decision-making responsibility.

Keep the Board of Education informed on over-all short-and long-range plans for the school system.

Refer matters which have a major or unusual effect upon the progress, success, or relationships of the school system to the Board of Education for information, advice, guidance, or approval, as appropriate.

Interpret Board of Education policies to those persons reporting direct.

Encourage those persons reporting direct to assume fully the responsibilities of their positions.

Give careful consideration to recommendations of those persons reporting direct.

Counsel those persons reporting direct on their self-development planning.

Encourage informal channels of contact between all persons throughout the organization.

Provide leadership by example and suggestion in maintaining good public relations throughout the organization by developing a reputation for:
The professional competence of employees.
The fair and equitable treatment of all personnel.
The quality and timeliness of the educational programs.
The contribution to advancement of the education profession.
The contribution to the level of education in the community.
The contribution to the advancement of the American form of democratic society.

Participate personally in appropriate affairs of the community, industry, government and the profession of education.

Reservation of Authority for Decision Making

(To be completed by the Board of Education)

POSITION GUIDE -- DIRECTOR OF INFORMATION SERVICES

Broad Functions

Accountable to the Director of Schools, the Director of Information Services is responsible for coordinating the entire program of information, communications and reports for the school system, to the ends of:

Informing the public on the needs, plans and accomplishments of the entire educational enterprise of the school system.

Identifying the policies and procedures of the schools with the public interest.

Principal Responsibilities

Recommend appropriate media to the Director of Schools and various organizational components of the school system for informing the public concerning progress of the educational program.

Undertake continuous inventories of the extent of public understanding and interest in school affairs for purposes of determining character and amount of public information required.

Counsel persons throughout the organization on improving their relationships with the public to the end of a more effective educational program in the public interest.

Maintain liaison with such agencies as the press, radio and television stations and others.

Advise the Director of Schools and the Board of Education on public relations opportunities available to them.

Prepare inclusive plans for maintaining continuing good public relations.

Recommend budgets for information, communications and community relations operations.

Prepare appropriate communication devices for internal information purposes such as newsletters, circulars, etc.

Prepare such communications and reports over such media as press, radio, television and school publications as may be required to accomplish the objectives of the function.

Develop a continuous program of analysis of community opinion on education, as assessment of citizen complaints, and the interests and activities of groups and organizations relative to education.

Relationships Responsibilities

Utilize fully the services of the Division of Research and Development in the undertaking of community studies and in resources of that division in the area of communications media.

Keep personnel of other functions in the school system informed of plans and activities of the information, communications and school-community work, as appropriate.

Refer matters which have a major or unusual effect upon the progress, success or relationships of the school system to the Director of Schools for the purpose of informing, securing advice, guidance, authorization or approval, as appropriate.

Keep in close contact with all phases of the school system operation as it might affect or be affected by the Information Services work.

Participate personally in appropriate affairs of the community and profession and occasionally represent the Metropolitan School System in important situations affecting public relations, without diminishing the status or importance of other positions or without relieving them of their responsibility for public relations.

Review with the Director of Schools over-all results and progress of the work of the Information Services operation.

Reservation of Authority for Decision Making

(To be completed by the Director of Schools)

POSITION GUIDE -- DIRECTOR OF PERSONNEL

Broad Functions

Accountable to the Associate Superintendent, Professional Services, the Director of Personnel is responsible for maintaining an inventory, consolidating requirements for and recruiting personnel. He is responsible for formulating salary administration scheduling and planning and systems of job analysis and specification.

Principal Responsibilities

Maintain an inventory of personnel including appraisals of qualifications for promotion.

Plan and coordinate a program of recruitment and retention of all employees of the school system, including such specific functions as:

- Interviewing.
- Investigation of references.
- Initiation, continuation and termination of contracts.
- Adjustment of personnel problems.
- Preparation of position guides, job specifications and classification.
- Administration of wage and salary policies of the Board of Education.

Prepare statistical reports and studies related to personnel as required.

Keep the Associate Superintendent, Professional Services informed of salary schedules and welfare provisions in the Metropolitan School System as they compare to other school systems and similar types of work.

Recruit, interview and evaluate candidates for positions as required.

Relationships Responsibilities

Assist other personnel in the school system on problems of organization and determining personnel requirements.

Assist such committees and organizations as designated ty the Director of Schools to study aspects of personnel in the system.

Keep personnel of other functions in the school system informed of plans, activities and requirements of the personnel planning operation as appropriate.

Consult with associate superintendents, assistant superintendents, directors, principals and other administrators in the school system on recruiting, classification, assignment and retention of personnel.

Refer matters which have a major or unusual effect upon the progress, success, or relationships of the school system to the Associate Superintendent, Professional Services for the purpose of informing, securing advice, guidance, authorization, or approval, as appropriate.

Initiate actions for the employment of persons, when so requested by responsible administrators.

Participate with others, as appropriate, in the development of programs of induction and orientation of new employees.

Keep informed of organizing plans of other functions to be able to anticipate their personnel requirements.

Maintain liaison with other school systems, teacher training institutions and other agencies to provide a source of trained personnel and to provide leads for those who desire transfers elsewhere.

Review with the Associate Superintendent, Professional Services, overall progress and results of the work of personnel planning.

Participate personally in appropriate affairs of the community and profession.

Reservation of Authority for Decision Making

(To be completed by the Associate Superintendent, Professional Services)

POSITION GUIDE -- ASSOCIATE SUPERINTENDENT, INSTRUCTION

Broad Functions

Accountable to the Director of Schools, the Associate Superintendent for Instruction is responsible for the supervision and administration of the instructional programs of the school system.

Principal Responsibilities

Keep informed as to the operation of the instructional program in all schools for purposes of evaluating the instructional program and for improving teaching procedures through conferences, demonstrations and other supervisory techniques.

Coordinate the work of all administrative district offices, special area subject matter specialists and consultants having to do directly with instruction in the regular classroom.

Establish and maintain programs of supervision and in-service education of classroom teachers in the school system.

Determine the objectives, policies, plans and programs for the short- and long-term successful operation of the instructional program.

Formulate proposals for Board policies on the various aspects of the instructional program of the school system.

Report to the Director of Schools on the condition and progress of the instructional program in the several schools and recommend changes and improvements which should be made.

Keep informed on latest developments in teaching and the administration and organization of instruction.

Interpret and communicate policies of the school system to those persons reporting direct.

Recommend the next lower level organizational structure to accomplish the objectives of the instructional operations.

Approve the organizational structure two levels down.

Assure that educational opportunities and instruction standards in the Metropolitan School System are maintained at least equal to comparable communities in the United States.

Recommend facilities necessary to provide instructional needs.

Take timely action, as appropriate, for accomplishment of objectives.

Hold those reporting direct accountable for results in order to:
- Maintain high standards of instruction.
- Maintain leadership in instruction and education.
- Build and maintain good relationships with the community served.
- Build and maintain a "climate for learning", encouraging curiosity, questioning, search and analysis and observation.
- Encourage extra-curricular activities to build pupil character, broad educational interests, high ethical standards and good citizenship.
- Earn the respect of the community for professional and ethical leadership and for the level of instruction and educational opportunities available in the Metropolitan community.

Select and appoint and remove persons in positions reporting direct, with approval of the Director of Schools.

Approve appointments to and removals from positions two levels down in the organizational structure.

Approve budgets for those positions reporting direct.

Recommend budgets for the instructional operation.

Review over-all short- and long-range plans for functions reporting direct.

Recommend salaries for those positions reporting direct.

Approve salaries for positions two levels down in the organizational structure.

Relationships Responsibilities

Keep personnel of other functions in the school system informed of plans, activities and requirements of the instructional operation, as appropriate.

Refer matters which have a major or unusual effect upon the progress, success, or relationships of the school system to the Director of Schools for the purpose of informing, securing advice, guidance, authorization, or approval, as appropriate.

Interpret school system policies to those persons reporting direct.

Provide a "climate" which will encourage those reporting direct to discuss their plans and problems and receive advice and counsel without affecting their decision-making responsibility.

Maintain a "climate" within the instructional operation in which personnel interchange ideas and experiences and keep each other informed of the progress and results of their work.

Keep in close touch with Professional Services personnel to keep them informed of needs and to be continuously informed on psychological services, guidance services, pupil welfare and pupil personnel matters, health programs, research development and experimental work, developments in instructional media and methods and reporting systems developed by such personnel as they may affect instructional planning.

Contribute to the development of pupil personnel services and programs of research and experimentation in education, as requested.

Participate personally in appropriate affairs of the community and profession and provide leadership in encouraging those reporting direct to do likewise.

Represent the Metropolitan School System in important situations affecting the instructional standards and teacher-pupil-parent relationships, without diminishing the status or importance of other positions in the operation.

Review with the Director of Schools over-all progress and results of the work of the instructional program.

Encourage those persons reporting direct to assume the responsibilities of their positions.

Give careful consideration to the recommendations of those persons reporting direct.

Counsel those persons reporting direct on their self-development planning and review such plans for positions at the next lower level in the organizational structure.

Encourage informal channels of contact between all persons throughout the organization component.

Provide leadership by example and suggestion in maintaining good public relations throughout the organization by developing a reputation for:

The professional competence of employees of the operation.
The fair and equitable treatment of persons reporting direct.
The quality of instruction.
The contribution of the operation to advancement of the educational profession.
The contribution to the level of education in the Metropolitan community.
The contribution to the advancement of the American form of democratic society.
The interest and desire to accept participation of citizens of the community.

Reservation of Authority for Decision Making

(To be completed by the Director of Schools)

POSITION GUIDE -- ASSOCIATE SUPERINTENDENT, PROFESSIONAL SERVICES

Broad Functions

Accountable to the Director of Schools, the Associate Superintendent, Professional Services, is responsible for the development of all professional functions related to instruction, the curriculum, pupils, research and statistics, supportive but not immediately an aspect of regular classroom instruction. The two major functions are (1) pupil personnel services, including health, welfare, psychological services and education of the handicapped, and (2) research and development, including work of non-teaching staff assigned to curriculum development, experimental design, statistical analysis, testing and evaluation and instructional materials.

The Associate Superintendent, Professional Services, is responsible for maintaining a "clearinghouse" of information on latest developments in the field of education, available to any person in the school system, and for adding to that fund of knowledge through research on specific applications of improved methods of teaching and organization of the curriculum in the Metropolitan School System.

Principal Responsibilities

Recommend standards of curriculum organization and instructional programs for the entire school system, within the broad policies determined by the Board of Education.

Design and develop records, reports, forms and systems of data processing appropriate to the information requirements of the school system.

Provide audio-visual services, including audio-visual materials and equipment and assistance in their use for the entire system.

Develop plans for most effective use of educational television in learning and teaching in the school system.

Prepare and compile statistical reports on pupil enrollment, attendance, promotion, retention, class size, teacher load, enrollment by subjects, follow-up studies of graduates and special reports required by other organizational components of the system and local, State and Federal agencies.

Keep informed on latest research and new practices in the field of education.

Maintain a "clearinghouse" of information in the field of education, making such information available to any person in the school system, on request.

Manage the program of textbook selection, coordinating the system of screening, evaluation and recommendation for the entire system.

Establish standards for measurement of results of the educational program, within the broad policies determined by the Board of Education.

Conduct system-wide programs of educational and psychological testing and educational measurement.

Provide for safeguarding the health of pupils and employees while under the jurisdiction of the school system.

Provide for a program of pupil guidance and counseling.

Provide a library service adequate to support the educational program.

Interpret and communicate policies of the school system to those persons reporting direct.

Determine the objectives, policies, plans and programs for the successful operation of the Professional Services component of the organization.

Recommend the organizational structure to accomplish the objectives of the Professional Services operation.

Recommend facilities necessary to accomplish the objectives of the operation.

Promote proper balance between short- and long-term objectives.

Hold those reporting direct accountable for results in order to:
    Maintain high standards of education.
    Maintain leadership in education.
    Build and maintain good relationships with the community served.
    Earn the respect of the community for professional and ethical
        leadership and for the level of educational opportunities
        available in Metro.

Select, appoint and remove persons in positions reporting direct, with approval of the Director of Schools.

Approve budgets for those positions reporting direct.

Recommend budgets for the Professional Services operation.

Review over-all plans for functions reporting direct.

Recommend salaries for those positions reporting direct.

Relationships Responsibilities.

Keep the instructional operation and the Board of Education personnel informed on curriculum development and planning, as appropriate.

Interpret school system policies to those persons reporting direct.

Provide a "climate" which will encourage those reporting direct to discuss their plans and problems and receive advice and counsel without affecting their decision-making responsibility.

Maintain a "climate" within the Professional Services component of the school system in which personnel interchange ideas and keep each other informed of the progress and results of their work.

Keep in close contact with principals and teachers to be continuously aware of their needs in connection with their instructional programs and to get their ideas in support of research and curriculum design.

Participate personally in appropriate affairs of the community and profession and provide leadership in encouraging those reporting direct to do likewise.

Represent the Metropolitan School System in important situations affecting future special programs and their development and educational standards, without diminishing the status or importance of other professional personnel in the school system.

Refer all unusual or major matters important to the successful operation of the school system to the Director of Schools for the purpose of informing, securing advice, guidance, authorization, or approval, as appropriate.

Review with the Director of Schools over-all progress and results of the work of the Professional Services operation.

Encourage those persons reporting direct to assume the responsibilities of their positions.

Establish channels whereby all professional staff of the school system may express their concerns regarding problems requiring research.

Encourage experimental programs in the instructional component of the school system, in classrooms and schools at all levels, and provide the necessary technical services in experimental design, evaluation and measurement to determine effectively the outcomes of experimental programs.

Give careful consideration to recommendations of those persons reporting direct.

Counsel those persons reporting direct on their self-development planning.

Encourage informal channels of contact between all persons throughout the organization component.

Provide leadership by example and suggestion in maintaining good public relations throughout the organization by developing a reputation for:

- The professional competence of employees of the operation.
- The fair and equitable treatment of persons reporting direct.
- The quality and timeliness in the provision of adequate programs of research and development and pupil personnel services.
- The contribution of the operation to the advancement of the education profession.
- The contribution to the level of education in Metro.

Reservation of Authority for Decision Making

(To be completed by the Director of Schools)

POSITION GUIDE -- ASSOCIATE SUPERINTENDENT, BUSINESS AFFAIRS

Broad Functions

Accountable to the Director of Schools, the Associate Superintendent, Business Affairs, is responsible for planning, organizing and directing the operation and administration of the major business and financial affairs of the school system. The business responsibilities include budgeting and financial planning, purchasing and supply management, plant planning and construction, operation and maintenance of plant, transportation, food service, financial accounting and reporting and central warehousing management.

Principal Responsibilities

Serve as budget officer for the school system.

Conduct finance studies and analyses for the Board of Education, in order that proper funds be allocated for operation of the school system.

Provide liaison between the Board of Education and the Metropolitan and State governments on all financial matters.

Maintain familiarity with State school laws and regulations pertaining to the business and financial affairs of the school system.

Advise the Director of Schools on financing the school system.

Advise all administrators, including associate superintendents, assistant superintendents, directors and principals on the preparation of their budgets.

Establish uniform budgeting procedures to facilitate the consolidating of budgets.

Compile a budget for the school system through consolidating the separate departmental budgets.

Provide for necessary accounting and arrange for the auditing of accounts.

Provide transportation for students.

Provide food service for the school system.

Provide a purchasing service for all supplies including texts, providing such purchasing service to other departments.

Maintain supply warehousing as necessary.

Provide facilities necessary for fulfilling the objectives of the school system.

Prepare long-range building and facilities plans.

Direct the maintenance and operation of the entire school plant, composed of all land and buildings used for school purposes including Board of Education facilities not used for instruction.

Assign personnel, within the limits approved by the Board of Education, to operate buildings and maintain satisfactory standards of heating, lighting, cleanliness and sanitation.

Execute construction and purchase contracts and assure compliance.

Contract for insurance and compensation.

Keep informed on latest practices in the field within the responsibilities of the operation.

Interpret and communicate policies of the school system to those persons reporting direct.

Determine the objectives, policies, plans and programs for the successful operation of the function of Business Affairs.

Recommend the next lower level organization structure to accomplish the objectives of Business Affairs operations.

Approve the organizational structure two levels down.

Promote proper balance between short- and long-term objectives.

Take timely action, as appropriate, for accomplishment of objectives.

Select, appoint and remove persons in positions reporting direct, with approval of the Director of Schools.

Approve appointments to and removals from positions two levels down in the organization structure.

Approve budgets for those positions reporting direct.

Recommend budgets for the Business Affairs operation.

Review plans for functions reporting direct.

Recommend salaries for those positions reporting direct.

Approve salaries for positions two levels down in the organization structure.

Maintain a program of evaluation of the efficiency of the record-keeping functions of the component, to the end that financial information is expeditiously available through proper utilization of modern equipment for the use of other administrators in the entire school system.

Provide a monthly report on the condition of the school budget.

Arrange for the in-service training of maintenance, custodial, clerical and other employees of this organizational component as necessary.

Conduct studies and plans for assuring the maintenance of efficient and economical business operations of the school district.

Relationships Responsibilities

Supervise the performance of trained clerical workers, custodians, cafeteria workers, mechanics, maintenance workers and others as necessary for the Business Affairs program of the school system in cooperation with supervisory personnel such as principals of schools in other components of the school system, and prepare an annual evaluation of the work of such employees.

Provide regulations which clearly define the manner in which custodians, maintenance personnel and food service personnel of this organizational component are to cooperate and be responsible to principals during all hours when schools are in use for educational activities.

Keep personnel of other functions in the school system informed of plans, activities and requirements of the business operation, as appropriate.

Refer matters which have a major or unusual effect upon the progress, success, or relationships of the school system to the Director of Schools for the purpose of informing, securing advice, guidance, authorization or approval, as appropriate.

Interpret and communicate school system policies to those persons reporting direct.

Provide a "climate" which will encourage those reporting direct to discuss their plans and problems and receive advice and counsel, without affecting their decision-making responsibility.

Maintain a "climate" within the business operation in which personnel interchange ideas and experiences and keep each other informed of the progress and results of their work, as appropriate.

Keep in close touch with the Professional Services and the Instructional personnel of the school system to be continuously informed on their planning as it might affect plant and facilities and other services planning.

Provide budget and financial statements to all components as aids to administrators in budgeting and financial control.

Participate personally in appropriate affairs of the community and profession and provide leadership in encouraging those reporting direct to do likewise, representing the Metropolitan School System in important situations within the area of responsibility, without diminishing the status or importance of other positions in the operation.

Review with the Director of Schools over-all results and progress of the work of the Business Affairs operation.

Encourage those persons reporting direct to assume the responsibilities of their positions.

Give careful consideration to recommendations of those persons reporting direct.

Counsel those persons reporting direct on their self-development planning and review such plans for positions at the next lower level of the organization structure.

Encourage informal channels of contact between all persons throughout the organization.

Provide leadership by example and suggestion in maintaining good public relations throughout the organization by developing a reputation for:

The professional competence of employees of the operation.
The fair and equitable treatment of persons reporting direct.
The quality of the work of the operation.

Reservation of Authority for Decision Making

(To be completed by Director of Schools)

XVI

FINANCIAL IMPLICATIONS

Reference has been made throughout this report to the great care needed in planning the development of the new school system because of the limitations of financial resources. One of the first steps taken by the survey staff in its work was a comparison of expenditures in Nashville and Davidson County with other school systems of similar size and economic resources. It thus became apparent early in the course of the survey that:

- Expenditure levels per pupil, though higher in the City system, were not high in either of the two systems. Roughly speaking, the City system was about average for systems of its size and about average for schools in the Southeastern part of the United States, while the County system was below average on such comparisons.

- Both school systems were considerably lower in per pupil expenditure than the United States average.

- Both systems combined were spending for public education about the same ratio to income of inhabitants as other school systems of similar size and per capita income.

- More public funds for education in Metro, if wisely spent to assure improved educational services, would not therefore be out of line with what other communities are doing, but this would undoubtedly require a higher than average financial effort of taxpayers in the community.

At the outset, therefore, the prospect of financing the improvements in educational service contemplated in this report seemed to the survey staff discouraging, particularly as it became apparent that there is and will continue to be unrelenting pressure from some quarters to keep tax rates down at all costs.

On the face of it, then, it is clear that the Transitional Board, the new Metropolitan Board and the administrative staff of the Metro School System must be prepared to:

- Clearly define educational goals and objectives.

- Evaluate alternative means of achieving goals and objectives.

- Establish courses of action in order of priority.

- Select courses of action with due consideration of both (1) the educational requirement and (2) the efficiency and economy of operation.

- Derive thereby a justifiable educational program, a defensible means of providing it and a feasible dollar price tag . .

- Communicate this to appropriate governmental agencies and the public so that the community can see what it is offered for a price and decide on the merits of the case.

The duty and obligation of officials of the new school system is not to keep taxes down, but rather to delineate an educational service suitable to the needs of the community at large, at reasonable cost and commensurate with the resources of the community and the apparent wishes of citizens; and to permit the public, by whatever mechanism of government, to decide whether it wants it or not.

Comparative Statistics

A word of caution on the use of school cost data -- valid comparisons of school systems can be made only after considerable adjustment of statistics usually reported in budgets and financial statements, and often not at all. For example, here are reasons why it was not even easy to compare costs of the two school systems making up Metro:

- Each system in differing amounts had County Trustee's Commissions included as costs. These funds had no bearing on support of the school program.

- The City, with centrally-operated school lunch programs, has expenditures related to same appearing in the 1963-64 budget. This is not so for the County, which does not operate school lunches centrally.

- The County must transport pupils; the City does not. Transportation and capital outlay along with other accounts are included in some reports, but have little direct bearing on amount spent for the current educational program in the classroom, where most learning and teaching take place.

- The County health service expense looks low because the County schools depended upon the County Health Department, while the City did not.

- Insurance cost was paid by County government, and did not appear as school expense for the County school system. Such costs appeared in the City system reports, not in the City government accounts.

- The two retirement plans differ considerably. This reflects differently in reports.

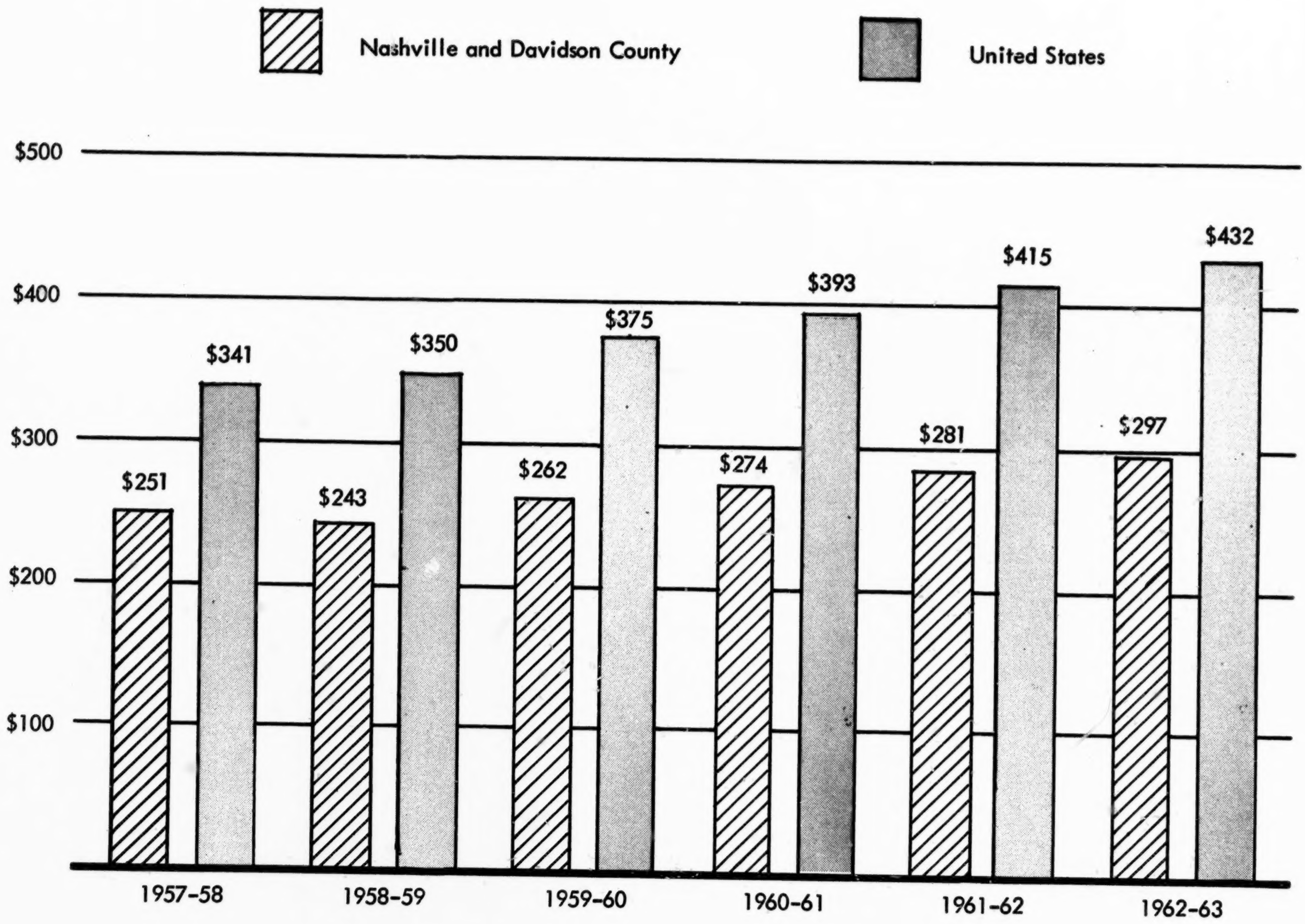
- Untold sums derived from fund raising projects in local schools go directly into support of the educational program, are unrecorded and prevent any realistic determination of school costs. In addition to the consideration that this practice misleads the public on the true cost of education, it is in conflict with the principle of free public education and counteracts the provision of equal educational opportunity.

In making comparisons of costs per pupil with other systems by means of State reports or U.S. Office of Education Bulletins, it is necessary to take care not only to include only comparable expense items, but also to divide these by comparable pupil figures. Costs per pupil enrolled, per pupil membership as of a given date, per pupil in average daily attendance and per pupil in average daily membership can differ by relatively incredible margins.

There must be staff in the Metro School System with time to analyze these problems of reporting so that statistics can be presented in enough ways to make it clear just how the financial situation of the school system stands.

Taking the foregoing into account, the survey staff developed as objective a picture as possible of the current financial situation in the Metropolitan School System. The following findings are relevant to determination of the feasibility of implementing financially the recommendations of this report.

Per pupil current expenditure figures, computed as comparably as possible to U.S. Office of Education statistics, show that current expense per pupil in A.D.A. in the two school systems combined increased from $251 in 1957-58 to $297 in 1962-63. These results are shown pictorially on the accompanying chart along with United States average expenditure figures over the same period of years. Roughly speaking, the trend of increase in the United States as a whole represents the increase in cost of education. As the chart portrays, there have been increases in expenditures per pupil in Nashville and in Davidson County, but this increase has not kept up with the increase in cost and over the years the expenditures



CURRENT EXPENSE PER PUPIL, 1957–58 to 1962–63, UNITED STATES AND NASHVILLE AND DAVIDSON COUNTY per pupil in the two systems have lagged behind the national average.

The costs of education have increased, as most everything else in the past seven years.[1] It is estimated that it would have cost, in 1962-63, $304 per pupil to provide the same educational services which cost $262 in 1959-60.

Between 1957-58 and 1962-63, expenditures per pupil, the country over, increased by 27 percent. During the same period the average expenditures per pupil in Nashville and Davidson County increased only 18 percent.

It is to be noted that these data do not include capital outlay, debt service, community services, tuition paid to other school systems, expenditures for services to non-public school children, expenditures for summer and adult education classes, and expenditures for food services and student body activities.

In 1959-60 the combined current expense per pupil in A.D.A. for the two systems was $262. At that time, about average effort to support schools among school systems in the 80,000-enrollment to 100,000-enrollment class was being exerted in the Metropolitan area. The per capita income in the Metropolitan district was then $1,706. By 1962-63 the per capita income in the district had reached $1,960. The expected current expenditure per pupil in 1962 at average effort to support schools (on the basis of income in the district) was $317.[2] The actual combined current expense per pupil in average daily attendance in 1962-63 was $297.

It may be concluded that the combined expenditure levels of the two districts would have had to average $20 more per pupil in average daily attendance to represent the average expected allocation of income of inhabitants to the support of schools from the experience of school systems of comparable size.

With 77,250 pupils in average daily attendance in 1962-63, this represents, at $20 each, a total of $1,545,000 more which would have been spent for schools in the area to match the income level in the area.

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[1] See the January 1963 issue of *School Management*.

[2] From analyses of school systems in the Metropolitan system size class, it has been found that the average expected expenditure per pupil on the basis of per capita income is .23 times per capita income, less $134.

It is to be concluded, therefore, that in the two systems combined:

a. Increases in current expenditures have not kept up with expected levels in terms of increases in income of inhabitants in the area.

b. Current expenditure levels in 1962-63 have not kept up with purchasing power of expenditures in 1959-60. Amounts in 1962-63 were less in purchasing value than amounts spent in 1959-60. In terms of financial support, therefore, the school programs in the area have virtually been standing still.

Tax rates are not too useful as evidences of level of community support, largely because assessment ratios are not known and because funds in varying amounts in support of education come through State and Federal governments. It is to be emphasized that the financial picture is in part complicated by the tax structure in the community. Changes in Tennessee methods of allocating State funds, local action which would derive revenues in support of schools from taxes other than the property tax, or increases in Federal support of education could change the picture considerably.

Costs of Implementing the Program

It is futile to project expenses into the future in detail without the many policy decisions which need to be made in organizing for the new program. Just how, in detail, recommendations such as those contained in this report will be followed is unpredictable, but a rough method of seeing what it would cost to implement this program is to examine the budget for 1963-64 in terms of what it might have been had the Metropolitan School System been in existence for some time and had all of the recommendations of this report been in effect as of the year 1963-64. A minimum budget along these lines compared with the actual budget for 1963-64 for the two separate systems appears in Table 43.

For 1963-64, the combined budget for current expense defined as in the foregoing analysis is $26,400,000. With an estimated average daily attendance for 1963-64 of 80,245 the current expense per pupil in A.D.A. is estimated at $329. As Table 43 shows, if all the new services and all of the improvements recommended in this report had been in effect, the budget for the current year 1963-64 would have been greater in the amount of over $5,300,000.

This does not include some new services which would distort the comparison. For example, there are no assumptions about system-wide adoption of kindergartens. It is estimated that in time, if a full kindergarten program should

TABLE 43

ACTUAL 1963-64

METROPOLITAN SCHOOL CURRENT EXPENSE BUDGET

AND ESTIMATED MINIMUM NEEDED

HAD ALL RECOMMENDATIONS OF THIS REPORT BEEN IN EFFECT

(in thousands)

Major account	Actual	Needed
Administration	$ 303.6	$ 716.0
Instruction	20,705.8	24,283.0
Attendance and health	287.8	434.0
Transportation	883.3	900.0
Operation	2,076.6	2,297.0
Maintenance	904.5	1,223.0
Fixed charges	554.9	1,163.0
Miscellaneous	681.4	700.0
Total current expense	$26,397.9	$31,716.0

be adopted, an additional cost of well over $3,000,000 in current expense alone could be expected for that. Also costs of the vocational-technical program and community college over and above services now provided have not been included.

It is of note that the theoretical cost needed had Metro been in effect averages about $395 per pupil. This is still below the United States average. It is also to be noted that this does not make allowances for increases expected in the future due only to increases in enrollments, as discussed elsewhere in this report. In other words, the school system faces increases in expenditure (1) to keep up with increases in enrollements, (2) to meet increases in costs, and (3) to eliminate deficiencies and improve the quality of the educational program.

The major items which would have hypothetically increased expenditures as shown in Table 43 are as follows:

- Professional-staff-per-1,000-pupil ratio of about 40, which is less than the ratio of 50 used by the United States Office of Education and others in studies of staffing requirements of quality education.

- An upgrading and reorganization of administration: approximately 38 additional central administrative professional personnel would have been added to the payroll in various divisions, as discussed in the previous chapter and elswhere in this report.

- Additional teachers, principals and/or other instructional personnel to reduce pupil-teacher ratios and class size, or the equivalent, in the amount of about 68 more people than were added in the 1963-64 budget over positions in the 1962-63 budgets, and salaries at a level recommended to be reached by about 1968 earlier in this report.

- Additional supplies and materials for instruction.

- A system-wide, school-operated school health program.

- Transportation at about the same standard.

- Operation and maintenance of plant brought up to about the standard now maintained in the City system.

- Some accounting recognition in fixed charges of costs of a pension and other benefits for teachers.

Outlook for the Future

The foregoing can be interpreted only in terms of the value judgments of the people of the Metropolitan School System. If the decision is defeatist, one to continue merely along lines of average effort and simply maintaining the status quo, there will be no encouragement to those who aspire to have better educational services. On the other hand, if the body politic feels optimistic about the economic future of the area and the contribution which education can make to increasing productivity of its citizens and reducing costs of welfare through drop-outs, juvenile delinquency and unemployment, an effort can be exerted and the future will not be inexorably futile.

The assessment of the survey staff, lacking economic studies which are now under way, is one of considerable encouragement for the future economic welfare of the Metropolitan school district. If, therefore, the needed increases in costs are systematically and objectively determined and presented, as has been suggested above, the apparent interest in education in the community is likely to lead to a willingness to support through public revenues a substantial improvement of educational services in the area.

Without question, prudent management will be demanded of many in the community who will support increases in costs of public education only if they have feelings that it will be put to good use. The school administration should be as concerned with the revenue situation as the spending plan of its budget, even though it is a fiscally dependent system. The Metropolitan district will not be alone among school systems in the United States which will find the conflict of increasing demands for educational service on the one hand, and pressures against increase in taxes, on the other.

A few final thoughts on ways to help finance the program are as follows:

- Ten or 15 years ago, funds were scarce for developing new ideas in education. The picture has recently changed markedly. For purposes of research and experimentation which can lead to the elimination of some of the outmoded practices of education and the development of improved practices, grants are now available through the U.S. Office of Education, Cooperative Research program and funds from many foundations interested in a frontal attack on some of our pressing educational problems.

- Educational officials must join with other government officials in the Metropolitan Government to study continuously the bearing of the State tax structure and school finance picture upon the outlook of metropolitan school systems such as that in Nashville and Davidson County. State school finance systems are such, generally, as to allocate funds in varying amounts to local school systems. The State of Tennessee has a State aid apportionment plan among the more defensible in the United States, but it should be looked upon in terms of its equity, not for purposes of seeking a special advantage for the Metropolitan School System. However, it apparently, in some respects, is working at a disadvantage to the Metropolitan School System.

- It is not unusual that the financing of schools becomes an issue of burden on the property tax. As is well known, this is an anachronism in the support of schools to which there has been generally too little adjustment. In addition to sources of funds through State and Federal aid, coming from taxes other than the property taxes, there is always the opportunity of taxes other than property taxes locally.

- In the interests of economy, the school system should seek to the fullest the services of the many capable public and private organizations and agencies in the Metropolitan community. This includes not only welfare agencies, but higher educational institutions such as Peabody and Vanderbilt University. It certainly would be to the advantage of the school system, for instance, to cooperate fully with Peabody College in its program of student teaching. Moreover, the research facilities of Peabody College and Vanderbilt should be used to their fullest in a manner which would minimize costs of the many studies which need to be made continuously in order to make the most improvement at optimum cost. There have been conversations related to the possibility of locating one school in close proximity to Peabody College so that it could be used for teacher training, laboratory school purposes and experimental and demonstration work. Such matters certainly should be considered regularly.

- Plan current expense budgets in gross terms over a five- or six-year period, as has been suggested in parts of this report, very much as capital budgets are regularly prepared, so that the year-to-year shock is not so great, so that there is some view of where the program is leading and so as to phase it in to the growth of the economic base of the community.

APPENDIX A

BASIC INFORMATION ON SCHOOL BUILDINGS IN NASHVILLE-DAVIDSON COUNTY SCHOOL SYSTEM AS OF MARCH 1963

Name of school	Grades housed	Dates of construction		Site size (acres)	Enrollment	
		Initial	Additions		Capacity	Fall 1962
Allen, Margaret	1-6	1950		5.5	300	477
Amqui	1-6	1948	1950	4.9	495	584
Andrews, Julia	1-6	1942	1953	9.3	390	176
Antioch High	7-12	1935	1949-50-54-55-59	30.5	1,022	1,344
Bailey	1-9	1929	1939-49	8.2	698	639
Baxter, Jere	1-6	1910	1941-54	3.4	615	719
Bellevue Elementary	1-8	1958		4.1	90	71
Bellevue High	9-12	1931	1950-56	16.2	400	313
Bellshire	1-6	1962		13.5	360	328
Berry	1-6	1947	1954	6.6	450	492
Binkley, Norman	1-6	1960	1961	9.9	540	696
Bordeaux	1-6	1955	1962	3.9	450	481
Brick Church	1-6	1949	1950-56-61	10.5	645	600
Brookmeade	1-6	1957	1961	10.4	360	376
Buena Vista	1-6	1931		3.0	700	398
Burton	1-8	1941	1950-51	7.9	450	597
Caldwell	1-6	1937	1952	3.2	930	586
Cameron	7-12	1939	1948-54-59-61	7.8	1,402	1,742
Carter-Lawrence	1-6	1939	1949-52	4.9	900	1,010
Cavert	7-9	1928	1936	5.6	303	347
Central High	7-12	1917	1942-48-50-51	9.2	1,323	1,273
Chadwell	1-6	1956	1959	13.6	480	505
Charlotte Park	1-6	1960		10.4	420	549
Clemons	1-6	1916	1954	2.4	600	489
Cockrill	1-6	1939	1954	7.5	645	428
Cohn	7-12	1928	1936-49	6.2	1,293	1,486
Cole	1-6	1962		10.6	360	393
Cotton	1-6	1949		5.9	495	358
Crieve Hall	1-6	1954	1957	18.3	540	654
Cumberland High	7-12	1929	1949-50-51-61	18.5	840	774
Dalewood	1-6	1949	1951-54	9.7	540	543
Dodson	1-6	1936	1950-55	7.1	210	283
Donelson Elementary	1-6	1924	1941-49	6.9	585	673

APPENDIX A (CONT'D)

Name of school	Grades housed	Dates of construction		Site size (acres)	Enrollment	
		Initial	Additions		Capacity	Fall 1962
Donelson High	7-12	1928	1953-54-56-59	17.8	1,287	1,447
Dupont Primary	1-3	1951	1954	9.7	360	378
Dupont Elementary	4-8	1926	1944	7.1	953	616
Dupont High	9-12	1930	1937-50-53-55	9.2	716	548
Eakin	1-6	1936	1954	3.8	580	478
Early, John	1-8	1940	1950-62	3.7	630	660
East Nashville Jr. High	7-9	1937	1949	10.8	998	1,038
East Nashville Sr. High	10-12	1932		10.9	1,021	807
Elliott	1-6	1916		.9	510	559
Fall	1-6	1898	1926	1.3	390	420
Fehr	1-6	1924	1949	2.2	390	360
Glencliff Elementary	1-6	1954	1956-59	10.2	480	535
Glencliff High	7-12	1956	1959-61	20.5	1,328	1,514
Glendale	1-6	1951	1953	10.8	420	351
Glengarry	1-6	1962		9.8	360	378
Glenview	1-6	1954	1957	9.6	540	523
Glenn	1-6	1903	1949	4.0	510	426
Goodlettsville Elementary	1-6	1954		18.8	540	762
Goodlettsville High	7-12	1936	1937-45-50-51-56-61	8.0	1,021	841
Gower	1-8	1941	1950-53	9.9	360	374
Gra-Mar	1-6	1961		11.2	240	292
Green, Alex	1-6	1936	1952	5.0	270	271
Green, Julia	1-8	1948	1950	7.5	495	543
Greene, Ford	1-6	1939	1961	7.2	1,050	1,240
Hamilton	1-6	1926	1952-60	4.6	210	289
Harpeth Valley	1-8	1938	1950	6.3	240	275
Haynes	1-12	1940	1947-50-53-54-62	16.7	942	1,121
Haywood	1-6	1959	1962	11.4	600	596
Head	1-6	1952		3.1	810	820
Hermitage	1-6	1962		10.0	300	279
Hickman	1-6	1957	1960	12.3	540	556
Highland Heights	7-9	1930	1935-39-62	5.9	930	577
Hill, H.G.	1-6	1953	1956-59	15.5	600	557

APPENDIX A (CONT'D)

	Grades housed	Dates of construction		Site size (acres)	Enrollment	
		Initial	Additions		Capacity	Fall 1962
Hillsboro High	9-12	1955	1958	21.5	1,165	1,108
Hillwood High	7-11	1959	1961	15.5	1,086	1,282
Howard	1-12	1940	1961	12.9	1,535	1,226
Hume-Fogg	10-12	1912	1917	2.0	1,071	714
Inglewood	1-6	1929	1948-58	5.2	585	712
Jackson, Andrew	1-8	1928	1957	9.2	180	185
Joelton Elementary	1-6	1932	1950	2.2	270	318
Joelton High	7-12	1950	1951-55	13.9	605	537
Johnson	1-6	1954		2.9	630	633
Johnson, Charles	1-8	1958		4.8	60	54
Jones	1-6	1936		2.8	480	445
Jordonia	1-6	1936	1959	2.8	210	163
Joy, Tom	1-6	1937	1947-53-55-56	6.8	690	664
King's Lane	1-6	1961		9.8	240	202
Kirkpatrick	1-6	1952		3.8	510	466
Litton, Isaac, Jr.-Sr. High	7-12	1930	1938-52-54	21.0	1,642	1,638
Lockeland	1-6	1939	1948-61	3.4	630	612
McCann	1-6	1936	1950-54-61	2.3	690	596
McGavock	1-6	1955		11.2	390	383
McKissack	1-6	1954	1958	4.6	990	1,066
Madison High	7-12	1951	1953-56-59	24.5	1,227	1,511
Maplewood High	7-12	1955	1959-60-61	33.3	1,167	1,461
Meigs	1-12	1934	1953-57	2.5	1,034	803
Mills, Dan	1-6	1937	1950-54-60	5.8	570	588
Morny	1-6	1947		2.8	150	188
Mt. View	1-6	1948		5.5	120	181
Mt. Zeno	1-8	1947		2.2	150	153
Murphy	1-6	1908		.7	270	281
Murrell	1-6	1958	1960	2.5	510	546
Napier	1-6	1898	1949	1.7	585	604
Neely's Bend	1-6	1953	1956	12.5	300	393
North Nashville High	7-12	1940	1950	8.2	1,073	644
Old Center	1-6	1936	1958-60-62	6.7	360	293
Overton High	7-12	1958	1961	37.9	1,044	1,482
Park Avenue	1-6	1916	1949	2.8	420	413
Parmer	1-8	1929	1948-51	7.8	600	555
Pearl Elementary	1-6	1917	1923	1.0	540	532

APPENDIX A (CONT'D)

Name of school	Grades housed	Dates of construction		Site size (acres)	Enrollment	
		Initial	Additions		Capacity	Fall 1962
Pearl High	10-12	1936	1945	6.1	1,033	1,225
Pennington	1-6	1959	1962	10.8	600	510
Priest, Percy	1-8	1956	1961	9.1	420	425
Providence	1-8	1950		7.7	240	263
Ransom	1-6	1925	1932-51-55	2.0	420	360
Richland	1-6	1940	1946-48-54	4.6	810	543
Robertson Academy	1-6	1936	1948-54	2.9	270	331
Rosebank	1-6	1954	1956-59	6.6	720	591
Ross	1-6	1907	1951	1.3	300	215
Shwab	1-6	1941	1951	9.3	510	634
Stanford	1-6	1951	1953-58	15.4	660	731
Stateland	1-8	1955		6.3	210	211
Stokes, Walter	1-8	1936	1949-50	4.7	480	450
Stratford High	7-10	1962		27.2	700	875
Stratton, Taylor	1-6	1910	1936-51-54	7.3	690	852
Sylvan Park	1-6	1935	1950-54	4.6	660	460
Turner	1-6	1925	1950	2.5	570	526
Tusculum	1-6	1936	1952-56-59	13.7	540	695
Two Rivers High	7-10	1960	1961-62	26.3	966	865
Una	1-6	1942	1951	10.6	480	525
Union Hill	1-8	1941	1957	5.3	180	191
Vaught, Martha	1-6	1950	1952	8.7	300	295
Wade	1-6	1937	1952	6.3	210	187
Warner	1-6	1916	1941-48	2.4	990	592
Washington	7-9	1928	1939-49-62	3.4	1,138	1,481
Waverly-Belmont	7-9	1935		5.8	409	318
West End	9-12	1939		13.0	694	587
West Meade	1-6	1961		12.5	240	306
Wharton	1-9	1958		7.1	1,228	1,417
Whitsitt	1-6	1950	1953	6.5	390	535
Woodbine	1-6	1922	1950-57	2.8	420	534
Woodmont	1-8	1931	1950	3.2	390	447
TOTALS, 135 Schools				1,164.3	82,099	82,624